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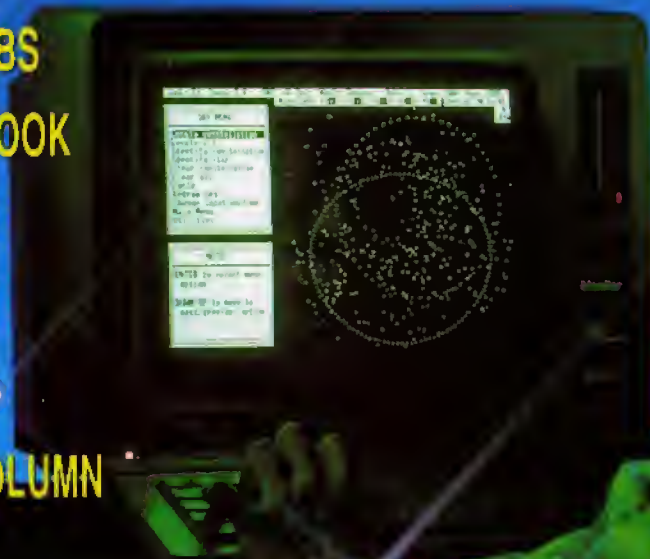
ISSUE 32 • MAY 1989 • £1.50

# AMSTRAD PCW

# 8000 PLUS

8256 • 8512 • 9512

- COMPUTER CLUBS
- MARKETING A BOOK
- PCW TIMEPIECE
- LEARNING CP/M
- BUYERS' GUIDE
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# STAR STRUCK

Navigate the night sky  
with your PCW



# cp software

NEW

## CLOCK CHESS 89

CLOCK CHESS 89 is the strongest and most versatile chess program yet for your PCW computer. It has the most advanced 3D graphics, the widest range of options, the power to play incredibly fast and the intelligence to selectively search deep into the position. CLOCK CHESS 89 has been tested against a wide range of other chess programs and has shown itself to be stronger than any of them.

Written using the latest techniques CLOCK CHESS 89 does not use the usual "brute force" method of searching for the best move, but instead is packed with chess knowledge which uniquely allows it to search only those moves which are "sensible" or "interesting" and not to waste time analysing lines of play which it regards as "trivial". In addition, it has a variable search depth which results in a deeper search of active lines, thus reaching those parts that other chess programs cannot.

- Now with added strategic knowledge to give an extra edge
- massive 44,000 byte, user extendable, openings library
- stunning 3-D graphics
- annihilates other PCW chess programs
- largest range of options, cursor controlled for easy move input
- special easy mode for beginners
- full display of its thought processes gives you a fascinating insight into its search mechanism
- perfect understanding of all the rules of chess including underpromotion, draw by repetition and the fifty move rule
- achieves all the standard mates including those occurring with minor pieces in the endgame - well able to handle difficult pawn endings
- makes full use of the extra memory of the 256K and 512K PCW

"CLOCK CHESS is a lively and interesting opponent. An aggressive program that keeps you on your toes .... it dices up Colossus Chess nicely" Mike Basman, UK Chess Champion.

CLOCK CHESS 89 IS COMPATIBLE WITH ALL PCWs £19.95

NEW

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CLOCK CHESS 88 - "strongest chess for PCW, 3D graphics are well done, enjoyable to play against, 5 out of 5" - 8000 PLUS

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BACKGAMMON - "good implementation of the game, uses the doubling cube properly, good graphics" - 8000 PLUS

DRAUGHTS "extremely strong play, 3D graphics are pleasant to use" - 8000 PLUS

FOUR GREAT GAMES FOR THE PRICE OF ONE.

CLASSIC GAMES 4 - Special Edition

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AND **EVERYTHING FOR PCW**  
but were afraid to ask

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- Create devastating graphics using fast smooth, user definable sprites.
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- Experiment with sound routines.
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- Discover hitherto unpublished low level hardware information, Ports and edge connector diagram.
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- "knocks spots off other basics!"

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NEW

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BRIDGE PLAYER GALACTICA, with its powerful card play and wealth of superb features offers you many hours of enjoyment testing and strengthening your knowledge in this classic game of communication and skill.

The Bridge Tutor contains 100 tutor hands, complete with manual describing the bidding and play. The hands include many different examples of bidding and play, ranging from fairly straightforward hands to endplays and squeezes. The hands have been selected by co-author, Nicola Gardener, twice World Bridge Champion, Olympic medal winner, TV Master Bridge presenter and director of the London School Of Bridge.

Bidding uses the ACOL system with Stayman, Blackwood, Gerber, Grand Slam Force and unusual No-Trump conventions.

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# 8000 PLUS

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ABC

June - Dec 88  
28,004 (15.6% year on  
year increase on 1987)

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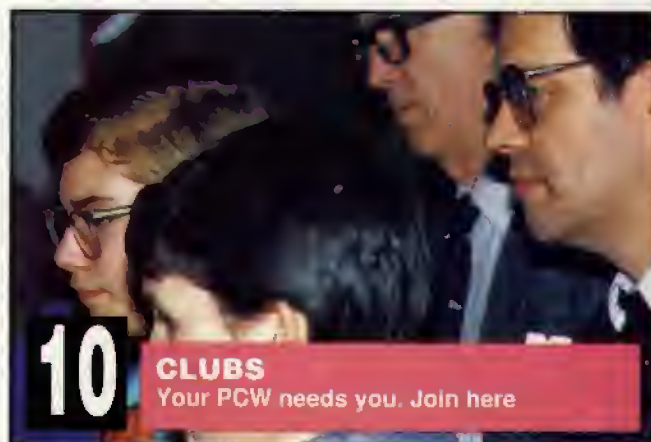
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software library

**LANGFORD**  
Lies, damned lies and statistics!

**LISTINGS**  
Basic fun and interest

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**GOOD SOFTWARE GUIDE**  
Wordprocessors, accounts/payroll, utilities  
and DTP

**SPECIAL OFFERS**  
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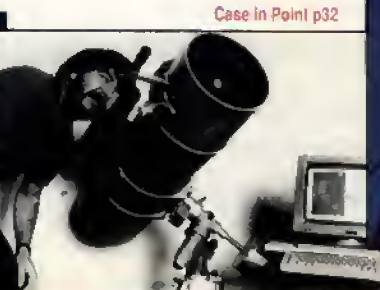
**POST SCRIPT**  
Are you sitting comfortably? Then  
letters begin

**ABANDON EDIT**  
Bailbar out

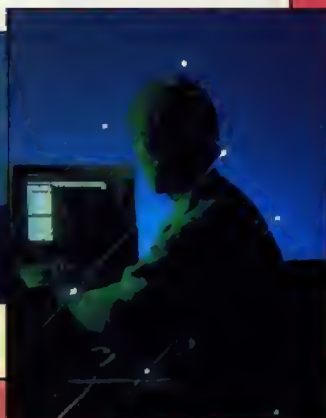
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# Want a computerised address book...

group 0/ADDRESS DAT LocoFile Printer idle Using M:  
Index: Surname Unique Item: Address Col: 4/45 Line: 6/13  
1=Actions f2=Index f3=Item f4=Print f5=Goto f6=Find f7=Extract f8=Options EXIT

record:  
First name Surname  
Sally Owen  
Address  
6 Loraine Gardens  
Watford  
Lancs  
BD4 8YS  
Home phone 0923 12497  
Work phone 091 133 7865  
Widget Company  
Industrial Estate  
Little Meadows  
Worcester  
th January 1989  
he new  
ner MkS is  
our top of the  
I am sure that the Supercleaner MkS will bring you the same satisfaction at home as you obviously get from the Office Valet Deluxe in your work.  
Yours sincerely  
Joan Smith  
Customer Services Manager

...THAT YOU CAN SEARCH  
AUTOMATICALLY?

Goto: +  
▶ Record with this key  
Next record of current index  
Previous record of current index  
First record of current index  
Last record of current index

... KEPT IN ORDER  
AUTOMATICALLY?

Main key type  
Alphabetic  
Numeric  
✓ Date order  
✓ Day/Month/Year  
Month/Day/Year  
Year/Month/Day  
Day/Month  
Month/Day

...THAT PRODUCES LABELS  
AUTOMATICALLY?

Print extract

✓ First name  
✓ Surname  
✓ Address  
Home phone  
Work phone

▶ Print  
Select all  
Select none

# LocoFile

For LocoScript 2

## THEN YOU NEED LOCOFILE

— the new database for LocoScript 2 on your Amstrad PCW.

LocoFile lets you use your PCW for more than just wordprocessing, and it works inside LocoScript so that you can have access to your data at any time.

With LocoFile you can keep information sorted into order and quickly available. It takes just a couple of keystrokes to copy a name and address from a LocoFile address book and paste them directly into your letter.

(Of course LocoFile can handle much more than just address books.)

LocoFile can print your data too. Print just one card, a complete card index, or just the records you've changed so you can keep your existing card index up to date.

And all this is always available — once you've installed LocoFile onto your Start-of-Day disc you can call it up at any time with just a couple of keystrokes.

Please send me the following:

FOR THE AMSTRAD PCW 8256/8512 Name

LocoScript 2 & LocoSpell £34.90 ☐  
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LocoFile } for LocoScript 2 £29.95 ☐  
LocoMail } £29.95 ☐  
LocoSpell } £19.95 ☐

FOR THE AMSTRAD PCW 9512

LocoFile £29.95 ☐

Postcode

☐ I enclose a cheque for TOTAL £

☐ Please charge my Access/Visa card EXP/DA

Signed

Send to Katy Buchan at:

**LOCOMOTIVE SOFTWARE**  
Allen Court, Dorking,  
Surrey, RH4 1YL  
TEL 0306 740606

Note: All prices include VAT and UK postage



## WINDOW ON WORDS

Standing in 'a well known high street electrical retailers' recently (well it was raining at the time and I just love browsing among the electronic goodies) I chanced to listen to a young man selling an elderly lady a computer.

What she'd actually asked for was something to help her with the burden of correspondence attached to her post as secretary to an association. Clearly she knew approximately what she wanted because she stood determinedly in front of the PCWs, though the close proximity of the PC1640s and PC2086 (we won't mention the dreadful Olivetti PC1s) seemed to be confusing her.

It was these IBM contemptibles that the salesman was trying to manoeuvre her into buying, but with that dogged perseverance which characterises elderly ladies of a certain class she held onto the only fact she was certain of: the machine she wanted came complete with software and a printer.

There were only two things she wanted to know; whether or not she could 'do her letters' on the PCW machines and which was the best for her purpose. Clearly money was important and she was determined not to waste any by buying the wrong machine.

The salesman persisted in explaining what a variety of powerful business-quality software she would be able to run if she chose a PC machine and the flexibility the system would offer her – yes, he admitted, she would have to buy the software, it didn't come with the machine. Not to mention all the wonderful peripherals she could attach since these PC machines came with various ports built in – no, they

didn't have a printer, she would need to buy one.

The lady stuck to her guns: she wanted a word processor that came complete, no extras, and she eventually got her way and left, the happy owner of a PCW 9512. This bit of byplay sparked a few thoughts from my remaining grey cells.

The first of these was the way that those with a good collection of years perceive the PCWs. Clearly they're seen as being friendly and easy to understand, which is rather odd really for a technology which was regarded as being complex and requiring extensive training only ten years ago.

The second thought to lazily surface as I considered whether or not I needed another calculator (I'm a calculator junkie, especially for old models with glowing red or green displays) was a vague feeling of regret.

The lady will no doubt be delighted with her PCW, and I'm delighted along with her, but it's unlikely that she will ever know that all the business software the salesman was pushing on the PC is available for the PCW. Her machine will tackle virtually any small business requirement that the PC could and for a fraction of the price.

Will anyone ever tell her that she can do her association accounts, keep records of her members and even play Tetris on her PCW? The odds are that her recent buy will prove not just economical but be greatly underutilised.

*Steve P. Katz*

### Lost in the mist

The computer industry have a word for products that are (often expensively) hyped but not actually available for sale; they're called vapourware. This isn't something the PCW has suffered from too much over the years yet there are currently one or two PCW products which fall into this category.

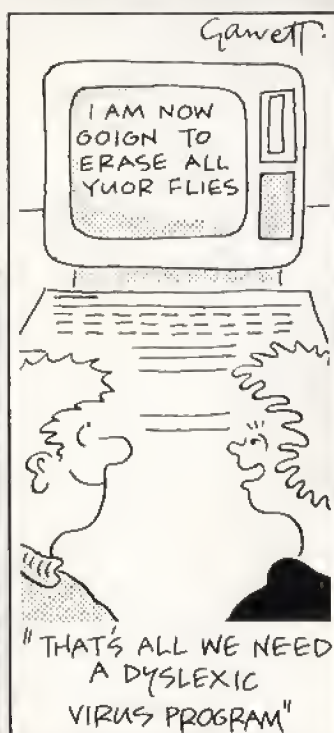
Certain companies naming no names to protect the guilty – are you listening Database? – have been pushing a product for some months now despite there being no sign of it. Of course it may appear between these words hitting the paper and hitting the streets, in which case apologies all around, but this kind of hype does nothing for the credibility of the companies concerned nor for those magazines that, however unwittingly, go along with it.

It's time the computer press, at least, took product announcements with a pinch of salt and waited for the thud of goodies on desk before commenting. And as for the magazine that ran a review of Mini Office Professional when no working version existed anywhere on Earth (rather skimping on facts) – they do their readers no service at all – and deserve their contempt. When it appears you'll read about it here.

### Number theory

Telephone numbers specifically. Despite thinking we'd sorted out the name of the typesetting company Transprint Communications who featured in our January issue it's still wrong, and people keep asking for the right one. It should be 0225 448218 – hopefully.

For those of you interested in Wight Scientific's academic database, Paperbase, mentioned both in last month's Case in Point and Thesis The Way, here's the number to find out more about it: 01 858 2699.



# 8000 PLUS

A midsummer's dream of an 8000 Plus will be in the shops from May 25th. Make the living easy - order your copy now.

### Plug in and go

How many times have you clambered about beneath your desk trying to remember which of the plugs in the four gang socket there is the computer and which is your desk light?

Nowadays, funnily enough, it seems that there are never as many sockets to go round as there used to be. All of which brings us to the subject of that strange looking object affixed to the front of the magazine.

Yes, as from today you may mistakenly unplug the video, the stereo or that thing that heats up and vibrates to make your feet feel better, but you'll never unwittingly disconnect your PCW again.

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Please State Model When Ordering	
*****	

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## SOFTWARE

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Protext Office (needs Protext)	£27.95
Pocket Protext: Wordpro. Only	£27.95
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## GOOD NEWS ON 3" DISCS

Three inch discs are here again, and its official. According to normally reliable sources it would appear that the 3" disc famine which has been affecting PCW owners and software manufacturers over the last few months is over. Amstrad say that discs should have been available for retail from April, and they never joke about business.

It seems that Amstrad wanted to see whether or not the market could support itself (?). Consequently they stopped importing 3" discs earlier in the year. After a month or so, it became obvious that the market was far from self-supporting. Whether or not the decision to stop importing a commodity for which the demand is created predominantly by themselves (with the PCW, CPC and Sinclair Spectrum +3) is in

any way linked to problems with the disc manufacturers or a genuine desire to see market forces ruling the waves are questions which hopefully, by now, are academic.

Amstrad were able to shift a million discs a year with their last consignment from the Far East. This time it looks as if they will be handling fewer discs more rapidly in order to obtain a quicker turnover. This new influx means that, not only will the average PCW user get his or her hands on new discs, but also that the software manufacturers will be in position to clear up supply backlogs. With luck and an element of demand forcing supply this might even mean more software.

Unfortunately the price of 3" discs does not look likely to drop.

## Lancelot, Win a Lot, Thanks A Lot !

Nottingham man John Sweeney has just made a lot of enemies. Seeing as he had to do battle with psychotic dark knights, deal with disinterested royalty and use his knowledge of Arthurian legend in order to win Mandarin Software's Lancelot (Launcelot?) competition, this shouldn't worry him too much.

His prize is a £5,000 replica of the Holy Grail – a fabulous achievement especially when you consider that Mandarin Software must have discovered the true Holy Grail in order to replicate it! But replicate it they did and produced a handworked goblet gilded with 22 carat gold and encrusted with precious stones.

Mr Sweeney managed to solve the final part of the competition in about a week. This enabled him to

trace the resting place of the Mandarin grail to the area of the chalk giant of Cerne Abbas in Dorset. Details of the exact location are not available.

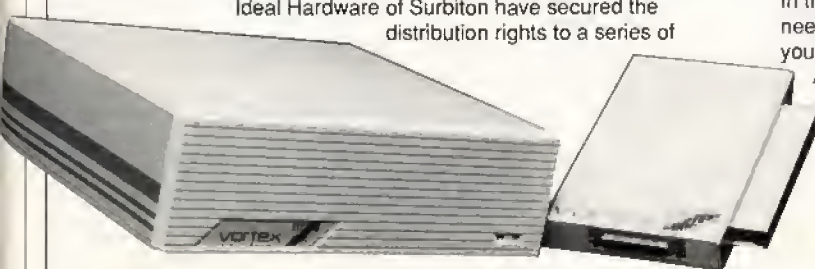
The competition began in October 1988 and was split into two sections, the first entailed a monthly question set over the Lancelot telephone hotline and used clues embedded in the game itself. The second consisted of nineteen questions based around the legend which needed some research.

While John Sweeney basks in his well deserved glory, the other people who tried for the prize can either busy themselves with the quest for location of his house or can contact Mandarin for the solution. This may be done by sending an SAE marked Grail Quest Solution and sending it to Mandarin Software, Europe House, Adlington Park, Adlington, Macclesfield, SK10 4NP.

## The Harder They Come.

Hard discs are either a boon, used for quick access and mass storage or a burden, used for erasing a massive amount of data. However you look at them it has been the case that the hard disc range for the PCW has not been flooded of late. The good news is that it has just doubled.

Ideal Hardware of Surbiton have secured the distribution rights to a series of



German made external hard discs. The Vortex System 2000 as it is known, comprises three elements; the basic disc, the cable and what Ideal Hardware call the Personality Module. This has nothing to do with Artificial Intelligence for the PCW but acts to tell the disc, which can be formatted for various machines, just which model it is working with. In theory this means that if you change from a PC to a PCW all you need to do is get a new Personality Module and you can hang onto your hard drive.

A 40mb Vortex System 2000 unit will retail for £499.00 and comes pre-formatted to suit your machine and is complete with manuals, cables and software. Additional Personality Modules will cost £195.00. 8000 Plus will be testing the System 2000 in the near future.

Greg Ganjou is the man to speak to at Ideal Hardware. Contact him on (01) 390 1211.

# NEWS

## Industrial Strength PCW Publishing.

One time Fleet Street journalist Micheal Hardman and his wife Marion, also a reporter, have achieved a feat which many people, who know no better, thought impossible. They have won a national award for desktop publishing using the PCW.

The British Association of Industrial Editors presented Ram News, the Hardman's publication, with first prize in its 1989 Editing for Industry awards.

Ram News is produced as an in(n) house newsletter/magazine for Young's Brewery and has been rolling past the bail bar since March 1987.

An upgraded PCW8256 is the main machine involved with the production of the magazine. The high quality typesetting is achieved using tailored software designed and written for the Hardmans by Typeshare, a London-based computer graphics bureau.

The parent company for the magazine is Capital Communications which operates in the public relations field and is also run by the Hardmans. It is prepared to take on projects ranging from reports, sports programmes – in fact nearly any media which can be desktop published and which might benefit from a trained eye and quality finishing. More importantly they are "...happy to work from PCW discs supplied by clients..."

Capital Communications may be contacted on 01-724-4507.





## Stop Press Bought by Database

Database Software, while still teasing us all with rumours (and packaging) for the new PCW version of Mini-Office Professional, have bought three desktop publishing packages from Warrington-based Logitech who are better known in this area as AMS.

This gives Database three PCW-compatible desktop publishing packages in their stable: Stop Press (£49.99), Stop Press with mouse (£89.99) and The Desktop Publisher with mouse (£79.99).

Although Logitech have decided to move over to the more volatile PC world, Database say that they have no intention of leaving the PCW. Their move to buy these products is seen as a positive show of confidence in the PCW as a versatile machine in a healthy market position.

Logitech, who claim to be the biggest producers of computer mice in the world have also sold off the AMX range of icon eating rodents to Watford Electronics who will now do battle with Kempston for the mouse hole in the PCW market.

Database may be contacted on (0625) 878-888.



attribute the drop to the fact that the machine was over-priced in the first place but is now getting close to true value for money status.

The two packages will retail at £199.95 (plus vat) for the Z88 by itself and £249.95 (plus vat) for the All-in-One. In both cases the price cut is £50.

## Whatever You Want

You might be secretary to a club, you might run a society, and you might have a pain in the neck brought on by that off-the-shelf software that doesn't take into account your individual needs and requirements.

Other computer users have access to custom made software but it seems that the PCW owner is often left to the whims of large software houses.

Simple Systems, based in Birmingham, have gone some way towards putting an end to this state of affairs. They will produce tailored packages written in Mallard Basic, and have done so for various organizations including the British Bird Council.

Proprietor Martin Barratt says that they will provide documentation and, more importantly, will provide full user support for the program or programs they write. What this means, according to Mr Barratt, is that customer satisfaction is guaranteed for the life of the program, and if a bug were to arise Simple Systems would squash it.

Simple Systems have been in business for three years and may be contacted for initial discussion and prices on (021) 475-1036.

## Nice One Cyrillic !

The PCW has had many wondrous pieces of software brought out for it over the last few years. The most recent fashion has been for foreign language character sets. A number of these languages use symbols which differ radically from the Roman set used by English. Consequently getting used to visualizing these as you type may prove difficult to say the least.

Kador, the company who brought us Seal 'n' Type keyboard protectors, have come up with another useful accessory for the PCW called Keytops. These are transparent PVC squares which stick over the individual keys of your machine. Inscribed upon, or rather beneath them to stop busy fingers wiping them away, are the characters which make up such languages as Arabic, Hindi, Farsi, Hebrew and of course Cyrillic.

As most of these languages are supported by LocoScript and all of them use alphabets which differ from Roman, Keytops may solve many (un)familiarity problems. As well as these more exotic languages, Kador provide Keytops covering the German, French and Italian sets, which we assume entail the addition of accents such as the French cedilla.

Prices for Keytops begin at £17.50 and Kador may be contacted on (0443) 740281.

## Pepying Sam

A new series of diaries is available for the PCW. Going under the rather tortuous title of dATAdIARY, they are produced by A4 Ideas of Calne in Wiltshire.

dATAdIARY offers three versions, of which the Special and the Standard come in A4 size. There is also a Filofax-size version.

All of these are page-a-day and A4 Ideas claim various attributes for them such as on-screen editing, the inclusion of important dates and the phases of the sun and moon. All versions run under LocoScript v2.2, versions previous to 2.12 will not be able to cope with the two special character sets (signs of the Zodiac and arty designs of telephones and bottles) which are supplied with the Special. As the dATAdIARY is in effect a LocoScript data file, which may be modified as any other data file, a working knowledge of LocoScript is assumed.

For further details, contact Laurence Upton at A4 Ideas on (0249) 815082.

## You Read It Here Last

One of the computer trade journals, suprisingly called Computer Trade Weekly, have compiled a survey which indicates that the PCW is the most widely available computer in the country. Three quarters of UK dealers (who expressed a preference) said that they stocked the machine. So there you go.

## Coming Down from Cambridge

Cambridge Computer Ltd (AKA Sir Clive Sinclair) have once again cut the price of their Z88 portable computer and All-in-One package. The latter consists of the Z88, a carry case, mains adaptor, 128k RAM pack, an updated user manual and four batteries.

Alan Boxer, the Managing Director of Cambridge Computers, attributes the cuts in price to strong sales and an increase in production. Other people may

## Exemplary Behaviour

Following along the lines of the PCW as media tool, John Evans, creator of the Designer Stubble series of disc-based guides to desk top publishing, has set up Exemplar Design.

The new company will publish both versions of Designer Stubble, the first edition of which was released in October 1987 and acts as a foundation course to the use of Database's The Desktop Publisher. The follow up, released in July 1988, extends the range and features of that foundation by illustrating possible methods of integrating Stop Press, Master Scan and Master Paint with the Desktop Publisher. Both 'editions' met with critical acclaim in the PCW press.

Exemplar will continue with these and will also be producing a new disc entitled Late Extra. As the name suggests, this package is concerned with the publication of news and newsletters. It revolves around the aforementioned Stop Press and contains new fonts and templates. Late Extra has been on the market since early April.

Prices for the Designer Stubble packages start at £15.50 and vary according to which machine you have and whether or not you wish to buy them together or separately. Late Extra will sell for £19.50. Full prices are obtainable from Exemplar Design, PO Box 683, Bath BA1 1XU.

## All the News That's Fit to Print

In these pages we attempt to convey up-to-date information of interest to PCW users. Obviously we can only print the news which we hear about or dig up. Frankly we would like to hear more.

So, if you have any information which you think should be in the news and would be of interest to PCW owners - 9512 seen in nightclub with P\*m\*I\* B\*rd's for example - we would like to see or hear about it too.

Send any newsy items to: The News Editor, 8000 PLUS, Future Publishing, 4 Queen Street, Bath, BA1 1EJ. If it really can't wait then phone us on (0225) 446034



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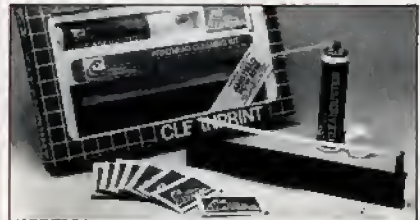
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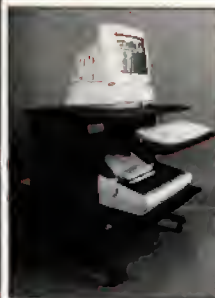
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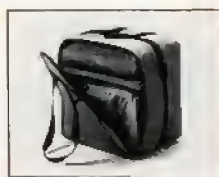


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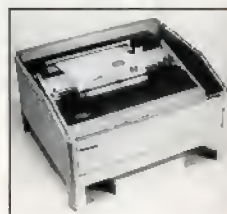
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# GATHERING FORCES

Ever thought of joining a computer user group? Sharon Bradley packs up her PCW and considers the perks

Getting the most out of their machines is a creed close to the heart of most PCW owners. How you go about it, of course, is up to you. Some are happy to bask endlessly in the green glow thrown out by their monitors in the comfort and privacy of their own home; that way they progress at their own speed and learn from their own mistakes. Others find it easier to associate on a regular

basis with what is essentially a like-minded bunch of people. They find the support and feedback from a club an important part of getting to grips with something unfamiliar. There, everyone can share in everybody else's discoveries; one person's moderately clever breakthrough can become another's passport to success.

The PCW, with its CP/M operating system, offers a large and varied software base. At the present time, for example, more than a thousand commercial programs and over ten thousand public domain programs exist which can be run under CP/M. Some may not be as powerful as programs that run on larger machines, but that doesn't mean that they don't suit the requirements of the many people who use them on a day to day basis. User groups, simply because there tend to be so many people contributing to them, are particularly good at scanning the market and informing their members about the software available to help them tackle particular jobs – and how much it's going to cost them.

When you consider that the PCW is a machine that lends itself so well to this kind of arrangement, it seems odd that there isn't a whole clutch of PCW clubs out there jostling with each other to claim your attention. Perhaps PCW people are not a particularly gregarious race, or, more likely, PCW owners are simply too busy using their machines to spare the time to talk about them. Whatever the reason, the truth of the matter is that if you wanted to join a PCW-specific club you might find

yourself in for a lot of travelling.

Alternatively contact John Dale at the British Association of Computer Clubs, 'Banc Y Rhosyn', Bron Y Glyn, Bronwydd Arms, Carmarthen, Dyfed SA 33 6JB. He keeps a list of all the registered computer clubs – whatever their denomination – that are dotted throughout the country; there may be one that you didn't know about. Don't forget to enclose a SAE when you write.

Those of you who originally bought your PCW as a word processor – and subsequently discovered its power as a computer – might be better off joining a general user group (a group which welcomes members regardless of the machine they operate). Of course it's doubtful just how much listening to a Spectrum owner discussing his latest games hitches or an Apple Macintosh user getting to grips with the finer points of his desktop publishing program is going to be helpful and relevant to you, but remember that computer enthusiasts often have expertise that extends across a variety of machines.

## The M25 club

The Middlesex PCW Computer Group meets the third Monday of every month. Perhaps because there are so few PCW user groups, this one attracts members from a very wide area. 'In fact,' jokes Ken Ritchie, the group's secretary, 'we're thinking of renaming it the M25 club.' Ken, for example, thinks nothing of making the one and a half hour journey from his home in Hertford to take part in the meetings at Hanwell Community Centre in Greenford, Middlesex.

The Community Centre is visibly a relic of bygone days: it used to be an orphanage, Charlie Chaplin having been its most famous resident. Now it is resounding with the eerie



Secretary of the Middlesex PCW Group, Ken Ritchie, with two regular clubbers getting to grips with The Desktop Publisher: 'How do you fill a graphics window that's bigger than the screen?'



thwacks of a basket-ball game being conducted somewhere deep inside. Once a month (every third Monday to be precise) this devoted clutch of clubbers straggles up the wide stairway of the Centre, the odd PCW conspicuous in its almost fluorescent travelling case.

By the time we reach the room in which the meetings are held (somewhere quite high up in the building), the PCW-carrying contingent has all turned a rather interesting shade of vermillion.

The PCWs are duly unpacked and loaded, with programs as varied as The Desktop Publisher and NSWP appearing on their respective screens.

### Deci-mates

About ten people arrive all in all – 'the usuals,' remarks Ken. This club has a committee which consists of Chairman Philip Seal, Secretary Ken Ritchie, a treasurer and an assistant secretary.

Membership to this club involves paying an annual fee of £2 plus a £1 payment at every attendance. That covers all the postage and photocopying.

The idea of initiating a Middlesex PCW Group was conceived in the early months of '87 but only really came fully into its own following an advert in 8000 Plus the following August. 'We considered starting a group subscription to 8000 Plus until we realised that everyone in the group has it delivered anyway,' says Ken with a smile.

Usually the meetings begin with a group discussion; people report particular problems that they've encountered or that have persisted since the last meeting. One member may want to know more about Mini Office Professional, another might be struggling with a particular aspect of LocoScript 2 or, more likely, The Desktop Publisher. If no one else there can answer the query directly, then the solution will hopefully be found before the next meeting date.

Tony Brown, who runs a photographic society in his spare time, is just one of the members who has been attending the club since day one. He's had an 8256 for two years and has recently expanded its memory: 'It was a pretty fiddly job,' he recalls. 'I thought I'd botched it up a few times. It just goes to show you, though, if I can do it, anyone can.'

### Getting away to it all

Tony originally bought his machine for producing all the information sheets that he sends out to his prospective students:

'It's different from conventional courses in that I organize week-long sessions for them in the Algarve,' says Tony. 'I love it out there. That way they get to learn about taking good pictures in a wonderfully relaxed environment. Naturally enough, a trip like this means getting a lot of information to them before we actually leave. The PCW has enabled me to get through quite a lot of work quickly; you see I organize these trips twice a year – in April and November.'

Tony originally started off using LocoScript 1 but is currently making the transition to LocoScript 2.

As well as easing his trips to the Algarve twice a year (we're all agreed – it must be very stressful), the PCW has also helped him keep track of all the customers that he services as a RentoKill man.

'Basically I'm responsible for an area that stretches from The Wash to the Wiltshire border. That means keeping tabs on more than 500 accounts: knowing when we saw them last and reminding them of impending visits.'

Tony is also able to make use of two 9512s at work and keeps all the data that he uses for work purposes on Cornix's Card-Index database. 'It's very good and its ability to sort on location is particularly useful for my line of work. There's only one problem though: South London is regularly



The M25 Club splits into two groups with CP/M wizard, Richard Cook (seen above) leading the way in operating system difficulties. The second is more of a 'free-for-all' for any LocoScript 2, AMX, SuperType, DTP or Mini Office enquiries.

appearing as an integral part of Suffolk. I certainly can't work out why and nobody else seems able to either.'

### Unlock your potential

One thing is for sure, though. Tony knows that he is just touching the tip of the iceberg as far as harnessing the true potential of his PCW is concerned.

Like many of the other members, he finds taking the trouble to attend his monthly PCW club a worthwhile exercise. These people get together primarily because they have something in common that is important to them. And giving each other a hand to get the most out of their machines is one of the most important incentives.

If you live Middlesex way, and are interested in finding out a little bit more about the group, write to Ken Ritchie with a stamped addressed envelope at 5 Rib Vale, Hertford SG14 3LE.

### A going concern

Cardiff Computer User Group, though not PCW-specific, is one of the best-established and longest-standing clubs in the country. It originally started way back in November 1982 and has been meeting religiously every fortnight since then. The club has, not surprisingly, made



Instrumentations designer, Bill Harwood, is the man responsible for arranging talks and demonstrations for the Cardiff Computer Club: 'It's essential to arrange such presentations if you want to keep interest in the group alive and kicking.'





Club Chairman, Tom Creighton, shows Geoffrey Barber and other members, the latest advances in MS/DOS disc editing.

## Enroll your own

If you don't fancy travelling but still want to join a club then why not start your own? Get acquainted with a number of fellow PCW owners who are also interested in building up a club and then place an advert in a magazine to recruit further support. At least two of the clubs featured here gained their original impetus as a result of a small ad placed in 8000 Plus.

use of a number of venues, including the University itself, but now meets in the EC Computer Exhibition Centre in David's Street, Cardiff.

As soon as you walk in, it's apparent that the club couldn't possibly have done any better as far as the venue's concerned. By day, the centre is an ordinary computer retail outlet. And when the club gets together one evening every two weeks, they are welcome to make use of the computers that are on display. The members are all in agreement; for computer buffs it's nothing short of idyllic.

Geoffrey Barber, who was the club's chairman for about five years, tells how it originally got started: 'The moment of great awakening occurred when we heard that four guys from Acorn were coming to give a talk at the Reardon Smith Lecture Theatre here in Cardiff. They did an absolutely superb demonstration with about 700 people watching; most of whom would have given their heart and souls for a BBC machine.' The club originally started off, therefore, as a BBC micro group but later began to welcome Amstrad PC users. Now the club will welcome anyone from the hardened IBM user to the dedicated Atari and Archimedes disciple.

'At one time,' says Bill Harwood, who is the club's events secretary 'interest seemed to be evenly divided between the 'fun' aspect of these computers and their business applications. Now we tend to concentrate exclusively on the more serious potential of the machines.'

## In one ear and in the other

This comes over most strongly. As Geoffrey Barber comments: 'We will welcome anyone at all who wants to join the club. We ask only that they are serious about their machine and wanting to get the most out of it. It doesn't even matter how little they know; what some people know about computers when they start coming here you could write on the back of a postage stamp and still have room for The Lord's Prayer. They come here knowing nothing and leave experts!'

Geoffrey goes on to explain that so many people – especially older people – go out and buy machines but it's only when they get home that they realise that they don't know how to get them up and running. By coming to a club like this, it's hoped that they will be able to pick up the odd tip here and there and cross the divide between total ignorance and not being afraid to have a go.

It has to be said, though, that the general feel of this group is one of lots of know-how being exchanged and fairly high levels of expertise. It's also clear that it's very well-organised. Most evenings, a club member or an external guest can be prevailed upon to give a talk or do a demonstration. Tonight, Tom Creighton, the club's current chairman and an accountant by profession, reports on the latest progress he has made in perfecting an MS/DOS disc editor.

Originally he found it difficult finding an assembler that would work on an IBM and eventually plumped for the shareware program called CHASM. Written in Turbo Pascal, this proved ideal for learners. It allowed a simple display of the contents of disc sectors. MicroSoft's macro assembler, DD17, was much too slow. The shareware assembler, A86, was to prove ultimately successful – even more so when a series of upgrades brought tidier screen displays and more sophisticated graphics.

The group listens avidly as Creighton outlines his progress on a Tulip AT 386. The group is free to ask questions and seek further clarification if they feel themselves falling by the wayside, but, to be honest, that rarely happens.

## What's my line?

The night 8000 Plus visited the group, about 15 members were present – 'hardcore attendants, these,' whispers Bill Harwood. On a good day, though, it has been known for sixty-odd people to show up.

Like many groups of its kind, it attracts people from very different walks of life; Geoffrey Barber is a computer consultant and works from home with the help of his Tandon; Bill Harwood, on the other hand, is an instrumentation designer. His work is now highly computerised and as a result, Bill finds himself particularly interested in Computer Aided Design and Management. The group also boasts – among others – a radio amateur, a university lecturer and a pathologist.

When you ask these people what makes them consistently forsake the warmth and comfort of their hearthside armchair to venture out into the cold and wet every fortnight (and let's face it – when it starts raining in Cardiff it never stops), the answer is invariably the same: says Geoffrey Barber, 'We're basically a very like-minded bunch who seriously want to get the most out of our respective machines. We've all learnt a lot coming to these meetings over the years.'

'But there's one thing that's fundamental to the survival of any club and it's something that we've always tried to stick to: we have an 80% success rate when it comes to organising some sort of event – like a talk or demonstration – every meeting. If you can't manage to inject fresh new ideas into the group, then it's only

## Official Sources

The Official Amstrad Professional Users Club is a name occasionally banded around in Amstrad circles, although very few people seem actually to know what it is. The club is the trading name of a company called Lasahold Ltd who also trade as Amsoft Mail order. It's split into two basic groups; one for the CPC machines and the other for the PCs and PCWs, the latter being known as The Official Amstrad Professional User Club. Sara Yeomans from the club's Marketing Department advises people thinking of joining not to be put off by the 'professional' in the

name; 'That is simply to distinguish it from the CPC club which is known as the leisure group.'

To join, you have to own the appropriate Amstrad machine and pay £39.95 every year. This entitles you to all the usual benefits – like receiving a monthly newsletter, discounts on new hardware products as well as constant telephone (or written) support from a technical hot-line. If you'd like to find out more about it, contact Sara Yeomans on 091 510 8787.



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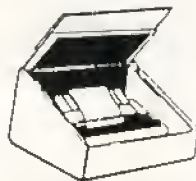
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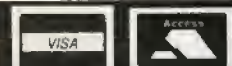
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reasonable to assume that it's going to fizzle out – as so many of them do, of course. External trips are also arranged whenever possible and they're always very well supported.' For further information, contact Josh or Vanessa Goodall on 0222 700140.

### Hampshire PCW User Group

One of the more successful clubs is The Hampshire PCW User Group which meets the first week of every month in Southampton. To ensure maximum attendance they've arranged the meetings so that they fall on a Monday evening the first month, a Tuesday evening the second month, a Wednesday evening the month after that and so on. 'It's a really good way of making sure that most of our members can make it most of the time,' says Peter Bassett, the group's Membership Secretary.

The group, which has been in operation since October '87, attracts a hugely diverse membership. 'We have people joining from all walks of life with no particular age-group dominating,' says Peter. 'Some of our members are students who bought their PCWs primarily for thesis-writing. Others own small businesses and use their PCWs in that context – for word processing and for working through the payroll. Quite a lot of our members are retired as well.'

This group also works on a distinctly organized basis. There are four committee members, each with their own strictly defined tasks to take care of. As well as Peter, there is a publicity officer, a secretary and newsletter editor and a chairman. Members pay a £10 annual membership. 'Since the last mention of the group in 8000 Plus a couple of months ago, interest has spiralled quite dramatically and we're now up to about 22 members,' says Peter. 'It's also quite surprising how far some people are prepared to travel: our catchment area includes Winchester, Fareham, Southampton and Andover. Several members, including me, travel to Southampton from Farnborough every month.'

### Programmed for success

Meetings generally start around half seven in the evening and go on to about ten. The first half of the evening is usually taken up by a lecture or presentation of some kind. 'Last month it was on Public Domain software, the time before that it was desktop publishing programs and next month it'll be spreadsheets,' says Peter. 'Then, towards the end of the evening we all sit down and have a mega problem-solving session.'

Someone else may be having trouble getting a particular part of a package to run properly. It's quite likely that someone else will be able to help them sort it out; if they can't, then they'll go home, have a practice and hopefully be able to shed some light on the problem the month after.

Further proof (if indeed any were required) of the group's organisation is the monthly publication of a newsletter to all members. 'It depends largely, of course, on the number of contributions we get, but we aim to get one out every month. We practise what we preach and do it all on PCWs,' says Peter. 'We've experimented with most desktop publishing programs in the past, although at the moment we're just using Stop Press.'

### Having your cake and eating it

Peter, who is, by profession, a British Rail accountant, has been involved with the Hampshire PCW User Club since December 1987 'when I first saw a discreet little advert in 8000 Plus'. The great thing about this growing user club is its distinct lack of 'know-how snobbery'; everyone who works with a PCW is welcome to join whatever their level of experience or knowledge. 'Some of our members are very knowledgeable,' observes Peter, 'although it has to be said that most are not.'

## Advantage User Group

Advantage of 56 Bath Road, Cheltenham GL53 7HJ also run a computer user group. Members are required to pay £15 when they first join; to renew their membership, which lasts a year, they must pay a further £13.

This entitles you to a monthly newsletter and a technical support hotline as well as providing you with a £1 discount off any discs that you buy there whether they're 3", 3.1/2",

or 5 1/4" discs. That also applies to any discs that are IBM MS/DOS compatible.

They are only too pleased to welcome membership enquiries from anyone owning an Amstrad PC 1512 or 1640, any machine in the Sinclair 2000 series, a CPC or a PCW (and that, needless to say, covers all three models).

Phone 0242 224340 for further details.

It's in distinctly apologetic tones that Peter informs us that his PCW has been relegated to strictly home use: 'It's regrettably not powerful enough to cope with all the number-crunching that we have to get through at work.'

The atmosphere within the club, though, is one of friendly informality. Last Christmas, one of the members recruited an unsuspecting confectioner friend to make a Christmas cake in the shape of a PCW. Unfortunately, it must have been good; it didn't hang around long enough for anyone to take a picture of it!



Forthcoming meetings of The Hampshire PCW User Group are timetabled as follows:

Monday, 3rd April (spreadsheets)

Tuesday, 2nd May (graphics)

Wednesday, 7th June (E-mail)

Anyone living in the catchment area who's interested in joining should drop a line to Peter Bassett, 27 Fellows Road, Farnborough, GU 14 6NU.

### Operating theatre

The CP/M User Group is a 'proper' club in the sense that it makes no money and has no commercial aims. It charges what its services cost and no more. Because the club is national in scope (indeed multinational since many of its members are European) it holds no regular meetings apart from an Annual General Meeting to elect club officers.

### Chain of events

Setting up your PCW user group is the easiest part. Keeping it vital and interesting over the months and years is harder. The most successful groups that we spoke to were so for one very important reason: they regularly arranged for speakers to come and do presentations in front of the group. That way there's always an infusion of new ideas to stimulate interest and keep members entertained.

## Smooth operators

The CP/M User Group (UK) is headed up by some of the most informed people ever to put fingers to keyboards. Its main function is to act as a support group for anyone using a CP/M based computer – and these days more than fifty percent of its members own Amstrad PCWs or CPC 6128s.

There is an (irregular) club magazine which has been known to run to 200 pages and a postal book lending library. The bulk of the club's activities consists of collecting and distributing many thousands of public domain programs – which they can supply on more than 150 different disc formats! A catalogue of what's currently available in the way of programs is supplied to all members.

A more recent activity is a CP/M User Group bulletin board which provides a much more active (and considerably faster) forum for the exchange of information and help with problems.

All these services are available to club members. The current fee is £11.50 per year (which includes access to the bulletin board) while disc copying charges are £2.65 per volume (effectively about 240k of related programs and documentation).

For further details and an application form write to Dianna Fordeed, CP/M User Group, 72 Mill Lane, Hawley, Dartford, Kent, DA2 7RZ.



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# TIME FOR A CHANGE

SCA Systems can give your PCW a permanent built-in clock.

The PCW already has a clock, but unfortunately it loses track of the time whenever the machine is switched off. Having the time permanently to hand makes datestamping files a far more practical proposition – no more finding out

that you created your latest update on 1st January 1978 because you forgot to set the clock when you started – now it can be completely automatic.

## REAL TIME CLOCK MODULE

£19.95 • SCA Systems • 0903 700288

Despite the expense, a lot of people bought the official Amstrad parallel/serial interface – the CPS8256 – in order to run a modem, a second printer, or to allow them to connect the PCW to other computers. It must have been a little galling for them to see SCA Systems come up with their own interface costing less money and incorporating a built-in battery-backed clock along with various utilities to extend the usefulness of the PCW.

If you were one of those people, then you needn't be galled any more because SCA have produced the clock module itself as a separate add-on; now you can fit a clock to the CPS8256.

The SCA clock is battery-backed (a small Nicad similar to those in watches) and recharged whenever the PCW is turned on; the battery will keep the clock going for many months between charges. The clock built into the PCW starts afresh each time the machine is turned on, and assumes the time is 12 am on the 1st January 1978.

The only problem is in getting the time from the clock module to the internal PCW clock. SCA provide a utility to do this which can be run from your PROFILE.SUB file thus making the whole procedure completely transparent.

## Marking time

SCA provide several pieces of software on disc. The really useful program is TIME.COM. It transfers the time to the system clock and can also set up the battery-backed clock once it is installed.

The other pieces of software are TIME.SUB, which can be renamed and used as your PROFILE.SUB file. GETIME.BAS shows you how to access the clock via Basic. CLOCK.COM, on the other hand, provides an analogue clock when used in conjunction with GSX. This is very pretty if somewhat impractical for continuous use.

The instructions for fitting the clock module are extremely straightforward, so we thought we would have a go. It does involve opening up the CPS8256 though, so if the sight of naked circuit boards tends to make you feel faint just take it slowly.

For those of you who simply can't face it at all, even with our step by step guide, SCA will do the fitting for you. Send them your interface together with a cheque for 24.95 in a padded envelope and don't forget to include your address – stick it to the interface to be on the safe side.

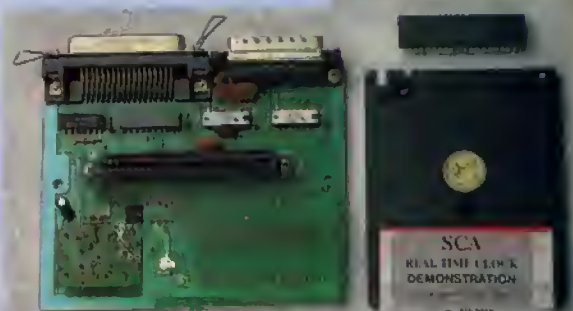
Once fitted, and provided you do date stamp your files, using DIR.COM to give you a directory with dates on it can make the task of keeping track of files much easier. This is especially true for programmers – who tend to call every file either TEST or Y4H\_77.J – and for those with a lot of correspondence who have trouble placing old letters in chronological order without actually reading them.

Once you've removed the interface from the machine, take out the two screws and ease out the circuit board. The largest chip is the Z80 DART. This has to be gently eased out of its socket so that the clock module can be put in instead.



Unless you have a chip removing tool – and hardly anyone has – a flat-bladed screwdriver is probably the best tool for removing the DART. Do this gently and working from both ends so as not to break either the DART or the board. Once the DART is out, the clock module fits gently into the socket.

Once pushed home, the CPS8256 is simply reassembled and refitted. Make sure the startup screen includes the words SIO/CENTRONICS ADD ON. If they aren't there, turn off the machine, clean the contacts with a hard rubber and try again.



## REAL TIME CLOCK MODULE

### PLUSES

- ▲ Simple to fit
- ▲ Makes date-stamping practical
- ▲ Comes with utilities on disc
- ▲ SCA will do fitting for you

### MINUSES

- ▼ Nearly half price of new interface
- ▼ You have to take interface apart
- ▼ Won't fit Pace units unless you can unsolder DART

**RANGE OF FEATURES**  
**PERFORMANCE**

5/5

**EASE OF USE**

4/5

**DOCUMENTATION**

3/5

**8000 PLUS VALUE VERDICT**

4/5



# GOT DESIGN

Desk top publishing has opened up the world of graphic page design

The first time you printed out your letter or manuscript your pulse quickened at the sight of the masterpiece spewing out of the platen in all its glory. Now you take it for granted that you can create pages of print all nicely laid out in next to no time.

But what happens when you want to expand the range of effects beyond the powers of a word processor, perhaps including pictures to help illustrate these beautiful documents? What you need is a desk top publishing program; and a new set of layout skills to go with it.

Every picture is worth a thousand words, which means that a picture should add a lot to any page it's put on. But the truth, as usual, is more complex than that. In fact every page is a picture made up of a number of disparate elements. What a desk top publishing program allows you to do is tie them all together on screen. Like everything else this is a skill that needs to be learned if you are to produce good results.

Fortunately, owning a PCW has its advantages when it comes to choosing a desktop publishing program. At the moment there are four good DTP packages for the PCW all of which are relatively cheap compared to DTP programs

## Getting it right

1. Since a page is normally scanned from top left to bottom right the first thing to take the attention should be the title; people shouldn't be left wondering if they're looking at the right magazine.

2. The headlines need to stand out from the copy text so that it will entice the person to read the article. Of course they shouldn't be that big that they take attention from the masthead. Use only one main headline on each page.

3. Use plenty of 'white space' throughout the copy text, this makes it easier to read and is less strain on the eyes. There are lots of ways you can do this. I have left a blank line after paragraphs with the new paragraph beginning at the left hand edge. Another way is to indent the paragraphs. Leaving a blank line before a crosshead (sub-heading) helps break up the body of copy as well. Crossheads should not be placed too near the bottom of the page.

4. Boxes can be used to surround items of text like the contents list on the front cover. To make them stand out a shadow effect has been created to lift the box from the page. Be careful not to over use the shadow box as it could then have the opposite effect.

5. A maximum of three typefaces has been used on the cover: one for the masthead, one for the headings and another for the copy. As a rule it is best to stick with one for copy as this will make the text much neater and less confusing.

## Village Voice

THE NEWSLETTER  
OF ST JOHN'S  
PARISH



● SPRING 1989 ●

### OPPOSITION TO EYESORE INCREASES

VILLAGERS are demanding that the new annexe at the bottom of the vicars garden be demolished right away. "It is an eyesore" said Mr Matthews who is the church warden, "and anyway where did he get the money to build it from, that's what I and the rest of the village would like to know".



The controversial annexe to the Old Vicarage.

A meeting was held in the school playing fields to discuss what action they were going to take against this offensive building. A vote was passed in favour of demanding that the annexe be demolished immediately and if the authorities don't take the appropriate action then the villagers have threatened to blow it up themselves.

Mr Truscott, the proprietor of the hardware shop, told me that he has already ordered the plastic explosive from Czechoslovakia, he is a determined man though he has admitted to me that he was unsure if he would have to pay customs on it.

#### SANCTUARY

I tried to get the vicars side of the story but when I rang the doorbell the caretaker informed me that he had barricaded himself in the annexe and hadn't been seen for the past week.

The vicarage used to have ten acres of beautiful gardens before the advent of the annexe, a small lake surrounded by trees and two huge flower borders attracted the wildlife. Now all you hear is the humming of the air conditioning and every now and then a wime as the lift moves into action. The deacon said that the vicar had planned the annexe three years ago, he told the committee that it would blend in well with the surroundings. The reason put forward for having an annexe was that it would serve as temporary accommodation for the homeless in the village. At that time the local MP had resigned and was looking for a new home.

Turn to page 2

### Inside this Issue

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Live Letters .....	8



# NS ON YOU

gn. Dave Axford shows you how to take advantage of it

used on other computers.

Buying a DTP package will enable you to print out text and graphics on your page with a choice of different typefaces and sizes, and lots of special effects included. We shall be using the program Stop Press to illustrate the skills of page design because it is easy to use and this program produces output to a standard quite acceptable for club magazines, newsletters, posters or leaflets.

When you first use your program, a pound to a pinch of salt there will be little thought concerning the structure of your layouts. The consequence of this will probably be a complex and clumsy looking result.

All desk top publishing programs have manuals that tell you all about using the program and how to achieve marvellous special effects, which is after all what you expect of them. On the other hand, you can't hope to produce professional looking pages without first learning where and when to use all of these facilities!

Creating a good design which is both attractive to the reader and simple to implement for you is very important. There's no point in spending hours or even days designing a magazine which has an elaborate layout if it is going to take nearly as long to recreate it for the next edition. The design of the layout therefore has got to draw attention to itself, to

## Getting it wrong



1. The typeface used for the masthead is too ambiguous: it is not easily read and therefore does nothing to call attention to itself in a positive way. The shading effect also makes the title blend into the background too much. The position of the title on the page is neither central nor at the extreme edge making it look untidy.

2. Too many typefaces have been used which makes the page look cluttered. The headline looks as though it is part of the masthead, the crosshead is right-justified whereas it should either be left-justified or centralised. Using a different typeface for a crosshead is not a good idea; better to use the same typeface with a bigger point size and perhaps using bold.

3. The picture has been badly placed which has allowed one line at the end of the first column to appear underneath the picture. This will lead to confusion on two accounts: firstly the reader is liable to miss it out and carry on reading from the top of column two, and secondly, after looking at the picture they might read the line as part of the caption.

4. The contents of the magazine hasn't been clearly laid out, using a fancy typeface makes it very difficult to find out what page an article you're looking for is on.

5. Too many different effects have been used which makes the layout look very amateurish and not at all inviting. Very little 'white space' has been left on the page, and even the sky has been filled in.



## Which weighs up

After finishing the page, always check on the screen that it looks as balanced as you intended by using the Page Access Window (PAW), this is the Stop Press miniature view of the full page. A rule of thumb when in doubt as to whether or not the page looks balanced is to take a look at the PAW from a distance. If it looks OK, then view it upside down and take another look. It's easier to face away from the PCW and bend down as if to touch your toes, open your legs and take a peek rather than turning your screen upside down. A balanced layout will look good from a distance whichever way up you view it.

persuade people that your work is worth reading and yet be simple enough for you to create the same style each time.

## Vox populus

To illustrate the creative process we will consider a magazine called the Village Voice, a controlled circulation magazine for the members of St John's parish. The magazine will comprise four sheets of A3 paper which is photocopied and stapled. This means that there are eight A4 sides of paper which are available for printing.

The most important of these is the front cover and this is where most of the design effort should go. There are many considerations but the most important is that it should have a title which is instantly recognisable; don't use a fancy typeface which makes it almost unreadable or the characters so small that it looks lost and buried amongst all the other work.

This means that the relative size of the title is important as well as the use of any background hatching which must complement and not confuse the issue. It is always a good idea to have an illustration on the front cover which is relevant to the issue, making sure it is placed on the page in such a way as to give a balanced effect, complementing any text and feature boxes which you may wish to include. The old saying 'a picture is worth a thousand words' is never more true than when describing the picture on the front cover.

When you step inside W H Smiths and walk over to the magazines you are probably looking for a particular title

such as 8000 Plus, but before you leave you will certainly glance at the covers of the other magazines on display. If the picture takes your fancy you will pick that up as well and see what it has to offer.

## Buy JOVE – the magazine for godlike people

If it's to your taste, you then purchase a magazine which you didn't intend buying. The cover picture was directly responsible for the impulsive buying of the magazine. But, while the cover has to grab the readers attention the inside pages are there to inform, to expand on the message. There is no need to shout once you have got the customers attention.

The inside pages will obviously have more text on each page than the cover, and you will have to make a choice about how many columns of text each page will have; if your magazine is A4 size, then up to three columns is possible. If it is going to be A5 size, it's advisable to stick with just the two otherwise there will be too many word breaks which leads to difficulty in reading.

You will also need to create a house style; these are the basic rules that you apply to your publication. Do you use full stops after a title or not (Mr. or Mr), which of these words do you use – 'disc' or 'disk'? Nothing is worse than to start reading the word 'disc' in one article and later in the same publication see it spelt as 'disk', or even worse to find them both used in the same article – it has happened.

Other elements of a house style include titles, columns, illustrations, captions, boxes, flashes and callouts. So once again establish a house style and stick with it. Always add to your house style, never take away.

There is a selection of thirteen different typefaces plus the Amstrad typeface available using the Stop Press program. This doesn't include another twenty typefaces which you can buy as an extra from Tecnation, the creators of Stop Press.

A typeface is a stylised set of characters and not a font as some desk top programs would like to make you believe. The typeface can be adjusted to different 'point sizes'; you will obviously use a bigger point size for a headline than the main body text. After a typeface, point size, spacing and style (italic, bold mask-style etc.) have been selected it is now known as a font.

## Type it easy

It isn't advisable to use too many of these fonts in your publication. Perhaps the best rule to stick to is one typeface for your headlines and another for your text. Use the plain typefaces unless you are creating a poster or producing an advertisement where a particular font is more appropriate to the content.

When you have decided on your house style you are ready to draw up your pageplan. Draw boxes where titles and illustrations are to be placed, mark inside them what they represent and don't forget to write the names of fonts where the headlines and body text are to go. After you have completed your pageplan you can now begin to create your first page. ■

## Dave Axford

Twelve years as a communications rating in the Royal Navy meant that I knew all there was to know about typing. Though I used computers of sorts for encoding/decoding signals, I found that when I did eventually get my PCW8512 I had a lot to learn.

It was February 1987 when I brought the PCW home. It wasn't too difficult to get the hang of it; in fact I was soon hooked. Not long after that I had to give up my job as a fitter/engineer because of ill health. Ten months later I was diagnosed as having M.E. (Myalgic Encephalomyelitis). The main symptoms I suffer with are extreme fatigue and tingling in the limbs which can make life

frustrating as well as uncomfortable. I am donating the payments for these articles to the M.E. Association for funding research into a cure.

A year ago I began helping Chris Bryant (editor of PCW-File) proof read and create cover designs for the User Group magazine. I enjoyed it very much and it helped me get my mind off my problems. In fact my PCW has been a life-saver, I hate to think of what I could of been like without it. I learnt a great deal during this time, though sadly PCW File has now been laid to rest. As soon as I am able to work full-time again, my intention is to get a job using computers in publishing.



## Professionally speaking

There isn't much difference between the screen definition of desk top publishing packages on the PCW and those on other machines. The difference is mainly in the way that they can tailor the definition of the finished image to the output device. The PCW screen definition is about 80 dots per inch (dpi) horizontally and nearly 40 dpi vertically; the PCW printer gives 120 dpi horizontally and about 60 dpi vertically, thus they match quite well. All that the desk top publishing program has to do is make a dot on the paper for each one on the screen.



# Add style to your PCW – with LocoFont

LocoFont gives you a range of typestyles to use on your PCW's built in matrix printer. With LocoFont you can match your typestyle to your mood – Roman for an important letter to the bank manager, Script or Penman for more personal correspondence...

There are 14 typestyles to choose from – 10 in Set 1 and 4 specialist fonts in Set 2.

**Set 1 £19.95**

Please find enclosed confirmation of your order for an additional 50 brass fittings with screw threads. But note...  
abcde ABCDE aBγδE ABΓΔE aBerr  
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**Capitals**  
FOR SALE: MINI 1000 – GOOD  
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WORK. TAX AND MOT UNTIL AUGUST.  
NEW SUBFRAME AND BRAKES. OFFERS  
ABCDE ABCDE ABΓΔE ABΓΔE ABBT  
ABBT 12345 εçöia +++v Vδfj/ @

**Roman**  
The minutes of the previous meeting were accepted as correct. There were five matters arising which were ...  
abcde ABCDE aBγδE ABΓΔE aBerr  
ABBT 12345 εçöia +++v Vδfj/ @

**Script**  
Taking as our hypothesis  $\nabla(\Sigma, \Theta\Sigma_2) \cong \Theta$   
sans the argument gives the result  
 $\int \gamma \Sigma_2 \Theta \Sigma_1 = 0$   
abcde ABCDE aBγδE ABΓΔE aBerr  
ABBT 12345 εçöia +++v Vδfj/ @

**Definite**  
We have been forced to adopt a tougher approach to returns of faulty product. No returns will be accepted without prior  
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ABBT 12345 εçöia +++v Vδfj/ @

**Copper Plate**  
You are invited to Ted's housewarming party. The new house is supposed to be finished on the 27th June, ...  
abcde ABCDE aBγδE ABΓΔE aBerr  
ABBT 12345 εçöia +++v Vδfj/ @

**Script**  
We're glad to hear that you enjoyed the little "surprise" party that we organised for you on your birthday. I'm sorry that I...  
abcde ABCDE aBγδE ABΓΔE aBerr  
ABBT 12345 εçöia +++v Vδfj/ @

**Finesse**  
The Residents Association  
« Annual Fête »  
The fête this year will be held on the 10th June at 2.30 pm  
abcde ABCDE aBγδE ABΓΔE aBerr  
ABBT 12345 εçöia +++v Vδfj/ @

**Modern**  
After disconnecting the mains power, unscrew the three screws marked 'A' and remove the cover slowly. Be very careful not to  
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It seems ages since I last wrote to you – and even longer since we last met. Now, that I've got more time why don't we meet up in London one day soon for a ...  
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# WHEN I'M CALLING YOU

You don't have to choose between Assembler and Basic - instead you can combine the two and have the best of both programming worlds.

If you've been programming for some time in Basic, you may well be beginning to hit its limitations. Mailard Basic, the PCW version, was designed as a fast business Basic and while it includes marvellous facilities for file handling with Jetsam there are, for example, no facilities for any kind of graphics.

The other limitation begins to show itself when you want to have something happen fast and instead it takes forever. The main culprit here is loops in which every line has to be interpreted each time an action is carried out even though the action has been done a hundred times before.

Basic works by reading each line of your program and comparing all the elements with what it 'knows' to find out whether it's an instruction, an operator or a variable. Once it knows this it can decide how to proceed. But once it moves on to the next line, it forgets everything it ever knew about previous ones and has to figure it out all over again the next time it sees it. For example:

```
10 x = 1
20 while x <= 2790
30 print "a";:x = x + 1
40 wend
```

This little program prints the letter 'a' over the whole screen, but to do it Basic has to decide what lines 20 and 30 mean. It has to interpret them in other words - 2790 times.

Obviously a great deal of unnecessary work is going on; if Basic could just remember what it was supposed to be doing from the previous occasion a lot of that time could be saved.

It turns out that most of the speed problems encountered in writing Basic programs are the result of interpreted loops. If you could speed up the loops, the whole program would appear to run a lot faster.

## Squaring the circle

The first thing to do is move any unnecessary calculation and any irrelevant lines outside the loop so that Basic doesn't have to repeat work that need only be done once. Even REM statements should be moved outside to save the time spent deciding the line doesn't do anything. If these steps don't speed the loop up enough, then sterner measures are called for.

By using a machine code routine to replace the lines inside the WHILE loop, you can gain direct access to the operating system without having to go through Basic. With a single stroke you eliminate 2790 sets of interpretations; this has to be a good idea and makes it well worth the effort involved.

The first step is to write the code to do the job of the loop. This is a straightforward procedure involving little more than setting up a counter, and calling the bdos routine that prints a character to the screen; this routine is called ASPLURGE and is fully commented on in the box.

When Mac is used to assemble this listing it produces, amongst others, a PRN file. The PRN file is shown below and as you can see it repeats the listing but adds some numbers at the beginning of each line. The first of these is the address at which the instruction can be found once assembled and is always a 2 byte hex number; the second

Basic is a safe programming environment providing a huge variety of services; if a program won't work, Basic will often go so far as to tell you where and how you went wrong. This handholding makes Basic a comfortable environment to work in and one that's very hard to crash.

The price you pay for this comfort is loss of speed and flexibility. Fortunately, Basic provides the means to use machine code from within itself.

```
10 REM prints A's all over screen
20 MEMORY &HBFFF:ASPLURGE=&HC000:count%=600
30 FOR x = 0 TO 22
40 READ x$:hexnum=VAL("&H"+x$):POKE &HC000+x,hexnum
50 REM The line above reads DATA, converts it to
60 REM a number and POKES it into memory above HC000
70 NEXT
80 CALL ASPLURGE(count%)
120 DATA 4E,23,46,C5,E1,0E,06,1E,61,E5,CD,05
130 DATA 00,E1,2B,7C,B5,FE,00,C2,05,C0,C9
130 END
```

This is the final Basic listing to write 'a's to the screen using a machine code subroutine. The number of 'a's is decided by the value of COUNT%. This has to be an integer value for the listing to make sense of it.

```
;ASPLURGE - EVERYWHERE AN A
;WHEN CALLED HL POINTS TO COUNTER VALUE
      ORG      0C000H
      MOV      C,M      ;LOW BYTE OF NUMBER IN C
      INX      H         ;ADDRESS OF NEXT BYTE
      MOV      B,M      ;HIGH BYTE OF NUMBER IN B
      PUSH     B         ;COUNTER ON STACK
      POP      H         ;COUNTER NOW IN HL
LOOP: MVI      C,6       ;LOAD C WITH 6 FOR DIRECT I/O
      MVI      E,'a'     ;PUT THE LETTER IN REG E
      PUSH     H         ;SAVE COUNTER
      CALL     005       ;CALL CP/M
      POP      H         ;RETRIEVE COUNTER
      DCX      H         ;DECREMENT COUNTER
      MOV      A,H       ;MOVE CONTENTS OF H TO A
      ORA      L         ;OR WITH L TO SEE IF ZERO
      CPI      0         ;IS COUNTER ZERO YET
      JNZ      LOOP      ;IF NOT GO AROUND AGAIN
      RET                ;GO HOME
      END              ;END OF LISTING
```

This is the original ASM listing to write lots of 'a's to the screen. Notice that it has been ORG'd at 0C000H so that MAC and HEXCOM will assemble the code for the right area of memory.



# MACHINE CODE

## Pass the parcel

Passing values to machine code routines is fully described in the Basic manual in Appendix III. Basically, as long as there are three or less, the addresses of the variables are passed. Otherwise HL and DE contain the addresses of variables and BC contains the address of an area of memory containing more addresses. If the address passed is that of a string then the address is actually of a string descriptor which itself contains addresses.

## Friendly Editor

If you've been tackling the series with only the software supplied with your PCW, then you're probably climbing the walls by now - either because you've been in and out of LocoScript so often you can do it in your sleep, or because you've been investigating the delights of ED.COM. If you intend to continue programming, then you need to invest in a decent editor (rather than a word processor). Those using Protext are alright; it started life as an editor and is still fast enough to do the job. For the rest though, try ED80 from Hisolt or VDO25 from the public domain.

number is from 1 to 3 bytes depending on the instruction; for example a RET is the single byte C9 whereas JMP 5000 would be C30050 in the PRN file.

It's this second group of numbers we're interested in since they are the actual machine code. These are the values which we will get Basic to put into memory. This machine code can then be used by Basic instead of the instructions inside the WHILE WEND loop.

## Insulating the attic

Right, you now have the machine code as a list of hex numbers. This is how we need it if we're going to have Basic use it with DATA statements. The next step is to rewrite the Basic program to use this machine code instead of its own instructions.

The first thing is to protect an area at the top of memory from Basic by lowering the ceiling. This has to be done since Basic stores strings from the top of memory down and would normally overwrite anything you put there. You do this with the MEMORY command as in the first line of the boxed listing. Since we're going to put the machine code at C000H, we set the ceiling at one less, or BFFFFH.

The next thing is to set a variable to the address C000H since the CALL command will only take a variable as an argument. CALL will also accept any number of variables. If there are less than three, then their addresses are passed in the registers HL, DE and BC in that order. Note that it is the address of the variable that is passed, not the value itself. It's important, therefore, to know the form of the variable; passing an integer gives us the address of a two byte number, whereas if we passed a floating point number we'd get the address of five bytes of mantissa and exponent - much harder to deal with.

## Code in the Head

Once we've got the hex numbers into the DATA statements, we have to READ them into a variable. We can't read them as numbers since they're clearly full of letters; the answer is to add the string &H to the beginning of x\$ (the one we've just read in) which turns it into the correct form for a hex number in Basic. Now we can take the value of it with VAL and assign it to a variable (hexnum in this case).

The value in hexnum is then poked into C000H+x until all

### :ASPLURGE - EVERYWHERE AN A

#### :WHEN CALLED HL POINTS TO COUNTER VALUE

```
C000      ORG      0C000H
C000 4E      MOV     C,M      ;HIGH BYTE OF NUMBER IN C
C001 23      INX      H        ;ADDRESS OF NEXT BYTE
C002 46      MOV     B,M      ;LOW BYTE OF NUMBER IN B
C003 C5      PUSH    B        ;COUNTER ON STACK
C004 E1      POP      H        ;COUNTER NOW IN HL
C005 0E06 LOOP: MVI     C,6    ;LOAD C WITH 6 FOR DIRECT I/O
C007 1E61      MVI     E,'a'   ;PUT THE LETTER IN REG E
C009 E5      PUSH    H        ;SAVE COUNTER
C00A CD0500    CALL    005     ;CALL CP/M
C00D E1      POP      H        ;RETRIEVE COUNTER
C00E 2B      DCX      H        ;DECREMENT COUNTER
C00F 7C      MOV     A,H      ;MOVE CONTENTS OF H TO A
C010 B5      ORA      L        ;OR WITH L TO SEE IF ZERO
C011 FE00      CPI      0      ;IS COUNTER ZERO YET
C013 C205C0    JNZ      LOOP   ;IF NOT GO AROUND AGAIN
C016 C9      RET          ;GO HOME
C017      END      0C000H ;END OF LISTING
```

This is the PRN file produced by MAC showing the addresses at which the machine code bytes go and their value. The numbers in the column beginning with 4E and ending in C9 are those you need.

```
mac asplurge
CP/M MACRO ASSEM 2.0
C017
000H USE FACTOR
END OF ASSEMBLY
```

When you use the Mac assembler it tells you exactly what it's done. The number C015H is the highest address and since you started at C000H there are just 14H bytes of code.

the data statements have been read. We now have a small machine code routine stuck up in high protected memory waiting to be called.

The actual call is made in line 80 with one variable value being passed to the routine: the value of count%. If you want to see it fill the whole screen, then change count% to 2700 (not 2790 since the OK when the program finishes will cause the screen to scroll).

The machine code itself is a simple loop - called LOOP - which continues printing an 'a' to the screen until the value in HL reaches zero. We've used the same idea before; this time, however, the part before the loop is more interesting.

Since the address of the variable is in HL, and not the value of the variable, we have to do a little preparatory work first. Using MOV C,M we get the value of the byte HL is pointing at into reg C - this is the low byte since as you now know values are held low byte/high byte in memory - then we increment HL with INX H and get the value held at the next address into register B. We now have the value of the variable count% in reg pair BC. If you decide to get further involved in machine code programming you'll find that passing pointers to where information is can often prove a lot easier than passing the actual values, especially when several values need to be communicated.

A nice use is made of the stack here by pushing the contents of BC onto the stack and immediately popping the top of the stack into the HL pair. Now we have the value of count in the HL register pair where we wanted it. ■

## Machine inefficiency

Belated apologies to anyone confused by the machine code listing in the assembler article in issue 30 (March). There is a line missing. In the routine FIN1 the last few instructions should read:

```
MOV     A,C      ;LOOK AT VALUE OF C
CPI      10      ;HAVE WE DONE TENS YET?
JZ       UNITS   ;IF SO GO TO UNITS
MVI      C,10    ;SET C FOR 10S IF NOT
POP      A       ;GET NUMBER IN A BACK
JMP      LOOP1   ;GO AROUND AGAIN
```

As you can see, we left out the CPI (compare) Z instruction which was rather silly.



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# FIRST TIME ON THE LINE

Ringing up that bulletin board for the first time can seem a little daunting, but remember, they want to hear from you.

The simplest and friendliest introduction to the world of comms are the Bulletin Board Systems, usually abbreviated to BBS. Most of them are operated by enthusiasts and their only reason for being there is so that you can call them. For this reason, the operators (usually called sysops, short for System Operators) make it as easy as possible for you to access their boards. Well, what are you waiting for, get on the line.

**H**ow you go about dialling a bulletin board depends on your particular modem and software; with an autodial modem you dial from the keyboard or the software does it directly for you once you've chosen the service from a list. With a manual modem, you dial first using a telephone and then connect the modem after obtaining a connection. All this you will know already (if you've been following the series) and it varies from one setup to another.

More interesting really is who you telephone and what happens then. As a PCW owner you would naturally prefer to contact a board that supports your machine and operating system; we'll get to the reasons for this in a minute.

There are boards that cater for almost every interest. It makes sense really, the telephone and bulletin board combination allows people with similar interests to communicate fast from virtually anywhere and the sysop is nearly always in!

## Mechanical perfection

When you communicate with a bulletin board, you are actually dealing with the sysop's computer rather than the man himself; day and night it sits there running special software that allows all the processes of communication to be handled automatically. The sysop only has to visit the computer occasionally (once a day or so) to do the housekeeping operations like clearing out graffiti (yes, even bulletin boards can suffer from this) tidying up message areas and having a look through programs and messages left for him by callers.

This has one big advantage when you first start; there isn't anyone there watching you make a fool of yourself as you wander like a lost soul through the menus and make most of the mistakes possible at least once. Remember though, you can't actually do any damage no matter how

you try, either to your machine or the bulletin board – the worst that can happen is getting cut off and/or your phone bill becoming inordinately high.

There are only a few really good programs used by sysops to run their boards, almost all public domain. One much used example is Wildcat! (complete with exclamation mark). Despite the fact that many boards run the same software it can be set up in a variety of ways. They all work, however, via a system of menus. We're going to go through a simple session on a typical bulletin board to show how the system works. In this case, it will be the CP/M User Group bulletin board run by Pete Catley and located in Windsor.

Like most boards, anyone can log on (phone them up and be connected). What normally happens then is that you are asked for your name and sometimes your address and telephone number, depending on the level of security implemented by the sysop concerned. In the case of the CP/M board, you're also asked for your membership number. Don't worry, you can still gain limited access even if you aren't a member.

## Names are the game

Most boards will automatically give anyone limited access; you can read public messages, pick up information about the system and generally look around. Further access depends on your name being added to a list of permitted users. In the case of the CP/M User Group board you have to join the club – which you ought to be in anyway.

Other boards have other arrangements. Some sysops will even send you a letter to get confirmation that you are who you say you are. Whatever the sysop requires will be clearly stated on the opening screens transmitted from the board.

These days passwords are de rigueur, and everyone has to have one – and remember it – to maintain access to the board. If you have software that will log on automatically, don't include your passwords in it. Anyone mistreating a bulletin board using your password will get you banned from every other board that sysop deals with. Comms people talk to each other; it's their hobby after all.

And now, after this prolix prolegomena, we'll actually get on the line. As you can see the board asks for your first name, then your second name and finally your password; it then asks if you are a member of the CP/M User Group.

## Viral matter

PCW owners can't catch a virus from a bulletin board. First of all the sysops check files uploaded to them, and secondly viruses only work on multi-tasking operating systems. There are programs called Trojan Horses which pretend to be things like Directory sort programs but actually wipe discs – we've never seen a CP/M version. If you're worried, then run downloaded programs from a test disc with nothing important on it first.

There are an awful lot of bulletin boards though many of them now cater mainly for users of IBM compatible machines. CP/M machines and software are probably the second most popular computer subjects on boards. There are, however, boards dedicated to Dragon computers,

Macs, games players, hackers, political activists and even one for Astronomers (Prometheus 01 300 7177 if you must know). Most boards carry lists of other boards the sysop thinks would be of interest to users of his board. This list comes from the CP/M User Group board.

Name	Baud	Number	Sysop	Hours	System
PC-Serve	Ex 2400 etc	0767-50511	Alan Walker.	24 hrs.	FIDO.
PC-Serve	SH 2400 etc	0895-52685	Iain Phillips	24 hrs.	BBS.
PC-Serve	HQ 2400 etc	01-864-2633	Brian Willis	24 hrs.	
Pete's Place	2400 etc	0206-862354	Peter Smith	24 hrs.	
Hats & Cats	2400 etc	0582-457336	Clive Waller	24 hrs.	
Dr.Solomon's	300/2400	024034946		24 hrs.	FIDO.
L'pool Mail.	1200/300	051-428-8924	Peter Toothill	24 hrs.	TBBS.
BOOG	300/1275	0252-626233	Jeremy Browne	24 hrs.	TBBS.
London TBBS	2400/1200	01-348-9400	John Newgas	24 hrs.	TBBS.
Log on the Tyne	1200/300	091-477-3339	John Rawson	24 hrs.	FIDO.
CATS	1200/300	0628-824852	John Corby	24 hrs.	OPUS.
MBBS Lecon.	1200/300	0401-50745		24 hrs.	RCP/M.



```

-----
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
-----
===== Menus =====
<F>File Transfer System
<U>Utilities System
<M>Mailbox Messages
<B>Notice Board Messages

== Session Log ==
<G>Goodbye (logoff)

```

7-Mailbox [press "?" for menu] ?

```

-----
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
-----
===== MAILBOX =====
<A>Answer last message read
<E>Enter a message
<Q>Quick-scan messages
<R>Read messages
<S>Scan messages

===== Bulletins =====
<H>Help in using BBS
<I>Information for new user
<O>Other systems list
(1) CP/M User Gr. up

===== Other Menus =====
<F>File Transfer System
<U>Utilities System
<B>Notice Board

```

```

-----
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
-----
-----R
8-Board CP/MUG [press "?" for menu] ?
-----
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
-----
===== NOTICE BOARD =====
<A>Answer last message read
<C>Change noticeboard topic
<E>Enter a message
<Q>Quick-scan messages
<R>Read messages
<S>Scan messages

===== Bulletins =====
<H>Help in using BBS
<I>Information for new user
<O>Other systems list
(1) CP/M User Group
(2) News section 363
(3) User Group News
(4) Board News
(5) Validation of Users
(6) Remote Operating System
(7) What's an Xmodem Anyway?
(8) The Book Lending Library

===== Other Menus =====
<F>File Transfer System
<U>Utilities System
<B>Notice Board

```

\*\* To Find an appropriate Message TOPIC enter <C>change to list the TOPICS, if you then enter ? we list the details of each Message TOPICS. \*\*

\*\* If you want to enter into the main or public mailbox area enter the TOPIC area CP/MUG. More Details under Bulletin No.4. \*\*

8-Board CP/MUG [press "?" for menu] Mailbox

STEVEN no messages for you at this time.

8-Mailbox [press "?" for menu] ?

Drive is A:

## We have contact

When you get through to a bulletin board, press [RETURN] a couple of times. A welcome screen will then scroll up the screen. Most boards simply send straight Ascii characters and your software pretends that your PCW is a VT52 terminal (a sort of glorified teletype emulator) and fills the screen before scrolling it to provide new lines.

Some of the IBM dedicated boards send graphic characters as part of their log-on screens. It will look strange for a bit and then clear as sensible characters start arriving. When the introductions are over, you will be asked for your name and then presented with the first menu. This is the first one on the CP/M User Group board. To get to a sub menu, simply press the letter indicated and [RETURN] or else press [?] for more information.

## Letter's speak

The beating heart of any bulletin board is the message area. You can leave several different kinds of messages on most boards: private messages, public messages, answers to questions, letters to the sysop and additions to specific discussions (usually called conferences). Some of the boards that support the FIDO network accept mail for other boards (including international mail) but you have to arrange for credit with the sysop first. This can be a really cheap way of contacting boards world wide.

## Manners maketh the man

Remember that most sysops are actually inviting you into their home, so behave yourself; no swearing and no spitting. If you leave messages then tidy them up once they've been answered, similarly, delete answers to messages left for you. Keep the system tidy - this makes it easier for you and for everyone else.

## Public service

Most boards have an area replete with public domain software that you can download; that you can ask for it and the board will send it to you there and then, a very nice thing to do. The CP/M User Group operates a postal book lending library, so downloading the list seems a good idea.

First we select the service we want with [F] for files which produces a directory and then [?] for the files menu. This shows the various options available. From it we select [S] for send. The bulletin board now waits for a signal from the PCW that it is ready to receive. It gets this once your PCW has readied a file to write to. Normally the file would be downloaded under the Xmodem protocol to avoid corruption but for text files - articles or lists - you can download them as Ascii files, which is a little faster since there's no error checking going on.

```

-----
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
-----
File area: LOGIN Files: 14 Space used: 337K
ARCE .COM 7K I JOIN .US 3K I ROSUSR .DOC 36K I UNCR .COM 2K
BOOKS .LST 10K I LUZIL .COM 18K I SD-15 .COM 14K I USR .COM 2K
CPMROS1 .DOC 25K I PK35835.EXE 70K I SYSTEM .DIR 69K I
CRUNCH .COM 2K I ROSOPS .DOC 65K I UMT .DOC 10K I
0 uploads, 1 downloads to date.

15-Files LOGIN [press "?" for menu] ?
-----
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
--*-- --*-- --*-- --*-- --*-- --*-- --*-- --*-- --*--
-----
===== File Functions =====
<C>Change file area
<D>Directory of files
<F>Filesize display toggle

===== Other Menus =====
<M>Library entry/exit
<N>New list
<B>Notice Board
<U>Utilities System

== Session Log ==
<G>Goodbye (logoff)

13-Files LOGIN [press "?" for menu] Send
File name: BOOKS.LST
BOOKS.LST contains 80 blocks.
Send time: 1 minutes 33 seconds at 1200 bps.
To cancel, type CIL-X.
Ready to send...

Drive is A:

```

This file contains the original list of volumes in library. Those marked with \* are not currently available, if you know anything of their whereabouts we would be grateful to know, or better still receive back the books.

Postage and Packing has been set at \$5.00 per volume except for those marked with @ and this will be followed the cost for that volume.

```

ILLUSTRATING FORTRAN
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CP/M USER'S GUIDE
SOFTWARE TOOLS
ART OF COMPUTER PROG (VOL.2:SEMINUMERICAL ALGS)
ART OF COMPUTER PROG (VOL.3)
ART OF COMPUTER PROG (VOL.1:FUNDAMENTAL ALGS)
PROGRAMMER'S CP/M HANDBOOK
ALCOCK DONALD
BARRON D CHAPMAN AND HALL
BARRON DAVID WILLIAM
BEIL DONALD W
BELL A T
BROOKES GRAHAM R
BROWN PETER JOHN
CRANDALL RICHARD E
ELBR R A
FRESHMAN RON
HELD GILBERT
HOGAN THOM
KENDRICK AND FLACHER
KNUTH DONALD E
KNUTH DONALD E WESLEY SERIES IN COM
KNUTH DONALD E WESLEY
JOHNSON-LAIRD ANDY

```

Drive is A:

## Book of the month club

This is a part of the book list downloaded from the CP/M User Group bulletin board. The process is exactly the same for a program file. It's worth noting that most program files are squeezed to make them smaller. The reason for doing this is that a smaller file takes less time to send and so costs less in telephone time charges.

Squeezed CP/M files will have a Q as the middle letter of the filetype - for example, FAKEFILE.COM - and you will need the program USQ.COM or NSW.COM, which you can get from the board, to unsqueeze them. The resulting squeezed files (program plus documentation usually) are often then put into libraries and so you need DELBR.COM to separate the files. Files with an ARC filetype are squeezed MSDOS files and probably of only academic interest to CP/M users.



# LocoScript 2 & LocoSpell

**Just using the LocoScript which came with your PCW8256/8512? Then you're missing out...**

**YOU COULD BE :**

## Counting the words in your documents

LocoSpell finishing	
Words checked:	95
Words to add to dictionary:	0
▶ OK	

## Using a faster better printer

Printer
MATRIX
✓ L83500
FX80
D630

## Spending less time editing

▶ Find page	????
End page here	
Last line of page	
Keep current line with:	
?? lines above	
?? lines below	

## Checking your spelling and typing automatically

Stopped at:	misstake
Replacement:	mistake
▶ Use suggested replacement	
Replace and then edit	
Edit this word	
Consult dictionary	
Ignore this word	
Mark this word correct	
Add to user dictionary	

## Having a choice of print styles

Character Set
✓ Standard
Sans serif
For printer
MATRIX

LocoScript 2 is the improved word processor for your PCW – it's faster, easier to use and gives a better printout. LocoSpell for LocoScript 2 checks and corrects spelling: use it to spot your typing mistakes and count your words. LocoScript 2 works with all your existing documents, so there's no need to re-type anything! ...

We could go on, but there's a 16 page detailed leaflet explaining the benefits of the whole LocoScript 2 family. If you're not already convinced write to Katy Buchan at Locomotive Software and ask for a copy. LocoScript 2 costs £24.95, LocoSpell costs £19.95 – BUT BUY THEM TOGETHER AND SAVE £10.

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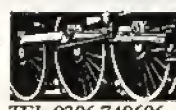
☐ I enclose a cheque for TOTAL £ \_\_\_\_\_

☐ Please charge my Access/Visa card EXP Date \_\_\_\_\_

--	--	--	--	--	--	--	--	--	--

Signed \_\_\_\_\_

Send to Katy Buchan at:



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# STARTING OVER

Curiosity drives progress – get curious and learn to love CP/M

If you've only used LocoScript then CP/M can appear an extremely bleak environment. You put in the disc, listen to it whirr, watch the bars march down the screen as everything loads in and then you're just left with an A> and no explanation. It might almost seem designed to discourage. In fact the paucity of information on the screen is a result of the efficiency of the system and there is plenty of help on line if you need it – literally, but we'll get to that later.

When using CP/M you effectively have an empty machine waiting for an application – a piece of software like ProteXt or SuperCalc – to be loaded; this is in contrast to LocoScript where everything is made ready for you automatically when you switch on. CP/M can be made to do this as well, and easily; we will be showing you how to do it in this series.

The A> prompt represents the question "What do you want to do now?" Even without an application being present there are several things you can do. The most important of these is to actually ask for an application to be loaded. You do this simply by typing the name of the program preceded, if the letter behind the > symbol is different from the drive the program is on, by the drive name: for example you might type B:SHOW after the A> to run SHOW.COM from B.

Programs that can actually be run (as distinct from a text file or a data file) will have a name ending in a COM filetype. They might be called SC2.COM or WORD.COM or PROTEXT.COM. The COM tells CP/M that this is a command file, and there isn't any need to actually type the COM part of the filename. There isn't any need to type in capitals either, CP/M does its own conversion. If you type a name and no corresponding application is found, the name is echoed back to you with the infamous question mark after it.

## Sign of relief

If you are only interested in CP/M because you want to run one particular application, a different wordprocessor or a desk top publishing program perhaps, then you've learnt all

## True to type

The TYPE command allows you to examine a text file of any kind. A good example of a text file is the KEYS.WP file on the CP/M disc. LocoScript files aren't strictly speaking text files since they are full of invisible control characters (they will TYPE if you make an Ascii file from the LocoScript document. You will also see the size difference after all the control characters are stripped out).

TYPE KEYS.WP – Prints the file to the screen.

Pressing [ALT]p before TYPEing a file will make all screen output echo to the printer (press [ALT]p again to stop it happening). [ALT]c will stop a file from listing and return you to the command line.

If you can't think of a good reason to turn over your LocoScript disc and investigate CP/M we can give you 10,000 of them – that's the number of programs waiting for you there. You think that number an exaggeration? If anything it understates the case. With more than ten years of use as a serious operating system behind it and over 300 different machines having supported it CP/M is too good to ignore.

## Doing it directly

The DIR command can be used in a very flexible way by making use of what we call wildcards. If you use the question mark it will stand for any single character while the asterisk will stand for all the remaining possible characters. This allows you to search a crowded disc for a certain type of file without cluttering up the screen with those you don't want to see.

- DIR – Lists all files on current drive.
- DIR A: – Lists all files on specified drive.
- DIR B:AUNT\_J.LET – Searches for the file AUNT\_J.LET on B.
- DIR \*.COM – Lists all COM files.
- DIR LET.\* – Lists all files beginning with LET.
- DIR JAN?.\* – Lists all files beginning with JAN and having one more character followed by a one character filetype.
- DIR M?:BEN\*.COM – Lists all files on M with BEN as second third and fourth letters and a COM filetype.
- DIRS – List system files (a kind of COM file, see USER).

you need to know; the application can be loaded from the A> and it will then protect you from further contact with CP/M, at least most of them will. You can put the CP/M manual aside and read the application manual instead.

You've come

back? Your manual has started talking about SUBMIT files and SETKEYS? Dreadful. In fact CP/M has a lot of small programs designed to allow the PCW to be set up and used in a variety of ways; these are called *utilities* and SUBMIT, for example, is one designed to allow a whole series of actions to be carried out automatically. It will have an article to itself later on in the series.

There are actually five commands that can be given directly from the command line (which is what we call the place after the A> where you type your commands). These commands are DIR, TYPE, REN, USER, ERA: details of their usage is explained in the boxes. The other thing you can do is to change the drive you're logged on to (the drive on which CP/M will look for a program). This is done simply by typing the drive name you want followed by a colon M:[RETURN]. The commands you will use most is DIR,

```

A> DIR
DIR
DIR A:
DIR B:AUNT_J.LET
DIR *.COM
DIR LET.*
DIR JAN?.*
DIR M?:BEN*.COM
DIRS

```

## Capital idea

Anything typed on the command line is automatically translated into upper case by CP/M. You can type in upper, lower or a mixture of cases with impunity. You can also type the .COM extension after file names if you want. The reason for putting names in upper case in the text is simply to make it more readable.



which gives you a directory listing, a list of every file on the disc in the drive represented by the letter behind the > symbol. This is so useful that it's worth spending some time playing with it to familiarise yourself with all its abilities.

These built in commands allow you to perform a few simple housekeeping duties on your discs. With them you can find out if the file (or application) you want is on the disc, rename it, erase it and in the case of text files even examine it on the screen with TYPE (but not LocoScript files unless you've used the Make Ascii option).

## No problem

Apart from the ERA command, there is nothing you can type that will cause either damage to the machine or damage to your discs and files. Feel free to experiment as much as you like. However, if you REN a text file to a COM file and try to run it by typing the name at the command line your machine will almost certainly lock up. You then have to switch off and back on again to regain control.

## Basic information

One of the first programs you're likely to use under CP/M is Basic. If you look at a directory of a disc with Basic on it you'll see it has a COM filetype. It's just another application you can run under CP/M (there are a whole range of languages among the other goodies that run under CP/M).

Like a word processor, which provides a computer environment specifically designed to facilitate writing, so Basic provides an environment for programming. Once you realise that Basic is a program running under CP/M – that

# Rename THAT.TUN

This is a surprisingly useful command, for altering the names of BAK files you want to preserve for example. Once you're familiar with it you'll find yourself using it a lot. The syntax is new name=old name.

RENAME B:CROCBLAT.DOC=ALLIGATR.LET – Renames ALLIGATR.LET as CROCBLAT.DOC.

You can have spaces either side of the equals sign if you prefer. Note that although the first name can specify a drive, the second one can't since you are only referring to one file.

```
>dir
1: NS      COM : COMMS      COM : SID      COM
>ren new.com=sid.com
>dir
1: NS      COM : COMMS      COM : NEW      COM
>ren sid.com = new.com
>dir
1: NS      COM : COMMS      COM : SID      COM
>■
```

# Erase the dead

Discs tend to fill up with all sorts of junk – a bit like bedroom cupboards in fact – and the way to clear them out is with ERA. This command is a bit final so use it with care.

- ERA DOCKLAND – Will get rid of the file DOCKLAND (but not the place itself).
- ERA B:DOCK\*.\* – Will erase all files beginning with DOCK.
- ERA \*.\* – Erases all the files on the current drive though it does ask you to confirm that this is your dearest wish first.
- ERA M:??MAY.\* – Completely zaps all files with MAY after the first two letters.
- ERA A:\*.BAK – Clears out all those old backup files.

```
M>era a:*.bak
ERASE A:*.BAK (Y/N)? y
M>era a:how???.*
ERASE A:HOW???.* (Y/N)? y
M>era a:books
M>era club.*
ERASE CLUB.* (Y/N)? y
No File
M>era a:club.*
ERASE A:CLUB.* (Y/N)? y
M>era *.*
ERASE *.* (Y/N)? n
M>era ????????.???
ERASE ????????.??? (Y/N)? n
M>■
```

will itself run programs provided as a text file full of instructions – some of the mystery associated with using it evaporates. If you've already read the rest of the magazine you will have seen the comparison between Mallard Basic (the one supplied) and Zbasic.

Many powerful programs can be thought of as providing a workshop dedicated to a specific kind of enterprise – some of them offering sufficient functions to completely replace the CP/M utilities. But for those occasions when you want to do something not covered by your application, the utilities will almost certainly provide the answer. To show just how useful the utilities can be, we'll round off this introduction with the SETDEF utility.

To show how this works type M:[RETURN] (from now on the [RETURN] is assumed) and then put your CP/M disc in the A drive. Now type SHOW. Back will come the message SHOW? to tell you it wasn't found on M. Now type A:SETDEF m; b; a; (leave the b; out if you don't have a B drive) and wait for everything to finish. If you type SHOW again the program will run.

What SETDEF has done is to force the PCW to look on all the drives one after the other before it gives up and tells you there is no such program.

SETDEF can do other things too which will be discussed in context when we examine the abilities of SUBMIT.

Meanwhile, have a think about all the things SHOW has actually shown you. ■

# Group effort

The command USER is both little known and less used, but anyone with discs full of LocoScript files can make good use of it. CP/M supports user groups, which LocoScript exploits. In LocoScript you can only see the first eight groups (0 to 7) but CP/M allows you to see all sixteen. Once in a group, commands such as ERA only act on files in that group. SYSTEM files are the exception. They are available whichever group you're in.

- USER 1 – Changes the user group from 0 to 1. Now the prompt will show a number as well as a letter, for example 1A>.
- USER – Will prompt you for the group number you want.



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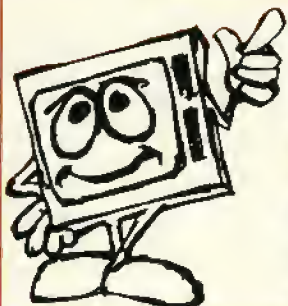
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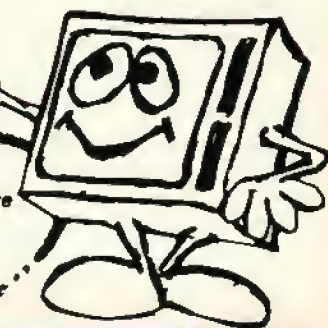
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# KAVIN



# THE SKY'S

Paul Sutherland, amateur astronomer, takes a look th

It took me a long time to get into the world of computers. The real early home computers passed me by. In a way, I'm glad they did. Otherwise, like many colleagues who share my interest in amateur astronomy, I might have ended up with a more obviously scientific BBC or Commodore 64 machine and not the PCW 8512 to which I am now addicted. As it was, I plumped for the Amstrad and it was love at first byte.

**T**hough my hobby is astronomy, my business is words – I am a sub-editor on a popular national newspaper. When my newspaper group embraced new technology, I quickly adapted to using a keyboard instead of sending scribbled instructions to printers in a composing room which more closely resembled a museum of antiquities.

One of my spare-time activities is to produce a newsletter for the Junior Astronomical Society, a national organisation for beginners. For years, these had been bashed out on a manual typewriter. We splashed out on an electronic typewriter that seemed a technological miracle. But it paled into insignificance with the arrival of the PCW.

## Young at heart

The Junior Astronomical Society is Britain's leading society for beginners to astronomy of any age. As well as the newsletters, there is a quarterly magazine plus regular meetings. Annual subscription is £8.50 and further details can be obtained from: JAS, 36 Fairway, Keyworth, Nottingham NG12 5DU.

As I became familiar with the advantages of word-processing, I had also been exploring the world of programming. There was a range of astronomical software packages for the Apple and IBM computers with spectacular graphics for plotting star maps or displaying eclipses. Nothing similar existed for the PCW.

However, useful astronomical programs in portable Basic are published in a book, *Astronomy With Your Personal Computer*, and the world's leading astronomy magazine *Sky & Telescope*, so I began the task of typing them into my machine. It was a tedious and often frustrating job, but the result is that I, or rather my PCW, could soon do such impressive things as accurately plot the paths of newly-discovered comets across the sky – a task which once involved mathematicians in hours of labour. The PUT command of CP/M allows me to save these positions as a file to be inserted into a LocoScript document for publication in our newsletter.

A useful early purchase was Exbasic – a cheap software package from the now defunct Nabitchi company which tacked itself on to Mallard Basic to allow graphics to be plotted without too much trouble. I realised that this

provided a key to the plotting of star maps. What I also needed was a list of star data – and I didn't fancy keying in the details of thousands of stars myself!

## Starbright

The breakthrough came with the discovery that just such a stellar database – the Yale Catalogue of Bright Stars – was available in the public domain. Despite the name, the catalogue lists over 9,000 stars, most of which are too faint to be seen without binoculars in Britain's light-polluted skies.

There were two problems: one, the catalogue seemed to be available only on 5.25" discs, and two, the full data would take up a massive 2 megabytes of memory. Luckily, I discovered that a colleague had already reduced the



Paul, together with telescope and PCW: "I am authorised to phone into the Royal Observatory's own computers. They hold an astronomical almanac on disc, allowing me to access data particular to any observing site I choose".

catalogue to four essential details for each star – its catalogue number, its magnitude or brightness, and the two coordinates which describe its position on the celestial sphere (the astronomical equivalent of longitude and latitude, termed right ascension and declination). Another friend with a 5.25" disc drive attached to his own PCW 8256 kindly transferred the data to Amstrad's 3" format for me.

This cut the catalogue right down to a much more manageable 260k ASCII file which would sit on a disc on my B drive while retaining all 9000 stars.

## Rising Star

My own befuddled brain is not up to dealing with the finer points of celestial geometry. But luckily I found a program in *Sky & Telescope* which will calculate the apparent positions of objects in the sky for any date and time from any point on the earth. Using Exbasic, it was not too difficult to adapt this to read my star catalogue and display the night sky on my PCW. I have further adapted the program to calculate the positions of the planets and plot them too. Another adaptation zooms in on any part of the sky I choose – invaluable for the rapid plotting of finder







# Amstrad Archives

Alan Sugar said that one day people would talk about 'amstrads' in the same way they speak of 'hoovers' or 'biros' – has he made it happen?

Like Henry Ford, Alan Sugar has attempted to reach mythic status. That is to say that highly successful company marketing has allowed Amstrad to gain more credence by altering the public perception of the company. This process mixes the man with the company and produces a hybrid image. The problem this newly minted myth creates for Amstrad observers, is that it can make it hard to see either the man or the company objectively.

## People and places for 10 points

For nearly two decades Amstrad computers have been made in Korea. Stan Randall is the head of Amstrad operations in the Far East (Korea, China and Hong Kong) and about eight years ago he took on nineteen year old Callen So as a secretary. From this post to Sales and Marketing Director of the Far East is no mean feat and it is not without reason that both Randall and Sugar eulogise this woman's business prowess. On the other hand, Joyce Caley (the PCW project was named after her), Alan Sugar's secretary for many years, appears to have disappeared into the mists of obscurity.

The year Amstrad began to trade under that name was 1968. The mini was a car or a skirt. The nearest most people came to a computer was Star Trek or the screen of a terminal connected to a distant main frame. The idea of having 256k of memory, let alone 512k on your desk was considered eccentric babble. A-lan Michael S-ugar TRADING bought and sold things electrical and otherwise.

Amstrad, between 1968 and the production of the (in)famous Tower stereo system in the late 1970's was very definitely the brainchild of Alan Sugar. The basic aim of Amstrad at that time was 'buy low and sell high', a good trick if you can do it and a hard one to learn. During these years the company was honing its selling skills and building up contacts within the electronics world. This period served to garner experience and gain the confidence of those in the market-place.

The late seventies brought doom and gloom and also the new concept of leisure as a full time activity. The Japanese were beginning to lose the reputation for shoddy work they had gained by association with the 'Made in Hong Kong' stamp and Alan Sugar realised that the Far East, rather than Germany or North America was the place to look for new manufacturing ideas.

At that time the Japanese export drive was swinging into high gear and we were importing everything from cars to cameras. As far as consumer products were concerned, the Japanese were making them smaller and cheaper than any

other European manufacturer. The age of the 'disposable durable' was upon us. In this arena where heavy long term capital outlay meant near certain death to any gestating British manufacturing company Amstrad was one slim, skilled gladiator.

## Small is superior

The major lesson to be learnt was that big was not beautiful. People wanted products which were simple to use, pleasing to the eye and easy on the pocket. And, of course, Amstrad

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**AMSTRAD G.B.C.**

The PCW invades Europe. A similar angle to the U.K. attack although Stanley Unwin it isn't! This Italian advert is pitched to please - not replace - the secretary



was nurturing a philosophy which matched these aspirations.

Imagine what buying a lawn-mower would be like if you had to get the motor from a mechanic, the blades from a cutler, the grass-pan from an ironmonger; especially if all of these people were specialists surrounded by others of that ilk all talking in code. Frustrating to say the least.

Amstrad, via the Japanese, came up with the simple notion of taking the components of a 'separates' stereo system and encasing the lot in one plastic shell (while retaining the look). Their innovative idea, and one which has since served them well both in terms of market impact and cost effectiveness, was to run the entire package from one power source. Previously, you would have had to have been well-versed in advanced macramé to cope with the copious cables and leads before settling down to the pleasures of Sing-a-long-a-Berlioz. Now you just opened the box and unpacked the Tower unit.

All you had to fit were the speakers. That done, you plugged in your one mains plug, took off the stylus cover and away you went. The only unfortunate part of the exercise was that, even with the remote control and twin cassette decks, the unit did for records what Rolf Harris does for Shakespeare's tragic roles - play them very badly.

This cheap and cheerful approach to electronic goods gave Amstrad a reputation as wide boys which was to stick with them even after the flotation of the company on the Stock Market in 1980.

How the mighty were shocked. Far from falling to pieces when they began to compete on first a national and then an international scale, Amstrad confounded the pundits by going from strength to strength.

## Shoebury the Way Go Home

For all the wittering about good and bad designs, the fact was that people were impressed by the prices and comfortable with the look of Amstrad products. This familiarity combined with the ease of use and most obviously the price, got around the inherent snobbery of the audio market and did the job. Consequently, with every Tower system that Comet and Rumbelows sold, the name Amstrad was falling ever more readily from the lips of cost-conscious

## Citizen Cane

Alan Michael Sugar was born in 1947 in what remained of Hackney, East London. There are many conflicting stories relating to his education. Some say he left school with O Levels and no A's and some that he left school with three science A's which would have been enough to get him into University. His main interests, however, appear not to have been academic and from his eighteenth birthday legends begin to grow about his burgeoning business acumen. Already germinating were the basic principles which make Amstrad the organisation it is today.

Take, for example, the common beetroot. The market for this noble vegetable was already strong in East London with the healthy Eastern European and Jewish communities supping brosch rather than

Campbells oxtail. Sugar would strip the unassuming veg of any extraneous details (skin and foliage), package it in easily consumable form (boil it) and sell it on to a grocer at a profit. From this inauspicious start, he moved on to selling car aerials from the back of a van. Then he sold plastic record player tops, (taken from mouldings for which he had paid 50p) for £15. The profit margins were set high even from his early years, a decision that has served the firm well ever since.

At twenty one years of age he made the first of many fact finding trips to Japan. Upon arrival he was asked as to the whereabouts of his father - obviously the inquisitor had missed the fact that this was the land of the rising son.

consumers.

Amstrad was and still is predominantly a trading company; that means that it makes the majority of its profits from importing finished products from the cheapest possible source, normally the Far East.

This strategy worked well, but still searching for even lower costs in 1982, Amstrad set up an assembly plant and 'woodworking factory' in Shoeburyness. Now all they needed to do was to hang on to the supply of electronic components which could not be made in this country at anywhere near competitive prices and construct the shells for audio equipment themselves. Costs were cut yet again.

There were clouds forming on the eastern horizon however as other companies began to realise the potential of the market that Amstrad had created. All-in-one systems became too commonplace to generate the substantial profit margins which the company was used to. Separates became either too esoteric or priced away from the average pocket. Amstrad decided to pull out and with this tactical withdrawal demonstrated their commitment to profit not product.

## Can You CPC the Light !?

The early eighties saw Amstrad expanding. Competition on the grand scale was very much the "buzz-word". Computer based home entertainment had progressed from the white blips on the TV screen and ten tonne space invader machines filling up the snug in the Kings Arms to the far more svelte Sinclair machines. Another market was opening which had all the hallmarks Amstrad were looking for.

A home computer at the time consisted of a keyboard to which you normally needed to add a tape-recorder and a television before you could use it for anything. Printers were a rare luxury and since most of the computers you could

## Share and share alike

When Amstrad went public in 1980, Alan Sugar took no chances. The feeding frenzy of take-overs had not yet begun so this may be seen as either astute foresight or small town mentality. Either way Alan Sugar's holding of 45% in the company gives him a nominal personal valuation of £500,000,000. At the last count he held 249,018,750 ordinary shares on a beneficial basis and 380,000 on a non beneficial basis (with a mysterious Mr N F Shearman). The company still makes no charitable or political contributions but no one is likely to carry out a coup either.

## The man who turned down the Beatles

A probably vicious and unfounded rumour concerning the early years tells how Alan Sugar asked his brother for a few hundred pounds in order to fund his van. In return he offered to sign over 50% of Alan Michael Sugar Trading. The brother replied in the negative.

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## Private lives

Much of the information about the man is contradictory. He once said 'If there was a market for mass-produced portable nuclear weapons, we'd be in it.' Yet it is also rumoured that Alan Sugar has set up a fund through which he can make donations to various charities; the Great Ormond Street Appeal is said to have benefited to the tune of £250,000 from this fund.

The myths of Sugar permeate the business world. Unlike Maxwell or Murdoch (with whom he now works on satellite television) he does



not plaster self-publicity over news sheets or use the support organisations set up on the 'hearts and minds' principle to further some self-image program. It is in fact company policy not to talk to journalists until the time is ripe for a new product launch.

Sugar has a love-hate relationship with the City. One of the reasons for this is that he has not bowed to the trend for takeovers, the stuff of which rumours are made, preferring the less glamorous approach of organic growth. He may act on gut instinct

but this is far from being a knee-jerk reaction. His is the cautious instinct of one who wishes to make money rather than devour capital. To this extent he bears the markings of the Victorian entrepreneur, exploiting where he can and deriving decisions from expedience rather than subtle planning.

Things to bear in mind: Sir Clive Sinclair has the knighthood but Amstrad has the Sinclair name. Sugar may get his supplies via Far Eastern labour (he sees the Japanese as 'programmed ants') but Amstrad recently paid £25,000,000 in British taxes. Depending on your viewpoint he is either an exploitative demon or business guru. As far as he is concerned, he is making a living.

## Alan Sugar says ...

"I don't know the actual basics of electronics, how the electrons flow and all that sort of thing, but I've got a fair grasp of the general principles."

"Eight-bit, sixteen-bit, one-bit, who cares as long as it works."

"Pan Am takes good care of you. Securicor cares. IBM says the Customer is King. At Amstrad we just want your money."

## What's Yours ?

Brentwood, home of Amstrad Tower(!), a building which has everything and runs from one plug, was the stamping ground of the Ambit team all of whom attended Brentwood Boys School. The building itself was leased early in the business and until the success of the PC1512 it was sub-let to various other concerns. These included a Swiss bank situated above the Railway Tavern.....so why so much trouble with getting supplies of DRAM's ?

afford to buy were suitable only for games playing or programming few people had one. To Amstrad this looked like a market waiting for a product. The product it got was the CPC464.

This all-in-one package consisted of everything you needed to sit down and start computing. It sold at a price which undercut all comparable systems and added the convenience of having it arrive in one box. In short, the CPC464 was a massive hit. It appeared that Amstrad had been forgiven for the poor quality of their early audioware and had been taken into the hearts of the people. The question is, however, how did the move from audio to computer occur?

## Birth of a notion

The birth of the CPC464 really saw the birth of Amstrad as a major company. Many important company figures joined at that time. Roland Perry, (of RPed.bas fame) who is now Amstrad's Technical manager, was working for a jobbing electronics firm called Ambit. Amstrad commissioned Ambit to design (or have designed) the new home computer, when Amstrad's own choice let them down badly with a package which might have looked fine but went beyond company tradition by not working at all.

Ambit at the time consisted of Perry, William Poel (who later left to concentrate on his own CP/M based work) and Chris Anstey. It was not long before Ambit melded into Amstrad and the three Brentwood boys became part of the

hierarchy.

The 464 was followed by the CPC664 (around 50,000 of these were made) which turned out to be a flop. It was the first example of the 'quick buck' approach to fail. The 664 was a very slight upgrade but both the competition and the consumer had moved with greater speed than Amstrad.

What people wanted was a machine with at least 128k memory and disc (rather than tape) storage capacity. As soon as Amstrad realised this, the CPC6128 hit the stores providing just that, and again was a success. All well and good but the company had made a mistake in the most basic of its strengths: it had misread the market.

Meanwhile the two teams which Perry had managed to entice into Amstrad's sphere, Locomotive Software and MEJ Electronics were already putting their minds to an idea which Alan Sugar had picked up while in Japan.

## PCW Money

Sugar had seen the future and it was in the office. Games were all well and good (it wasn't long before the CPC was being touted as a business machine which also played games) but the competition was once again catching up. The obvious next step, according to precedent, was to find a niche and fill it.

Amstrad weren't about to compete in the mainframe or mini computer realms but the small business market was ripe for attack. So, even as the CPC was hitting the shops the PCW was into the design stage.

The machine had all the hallmarks of the true Amstrad. It was small, packaged as the adverts said, with everything you needed to switch on and print out. It was also priced to slice the rest into wafer thin chips. What's more it worked like a dream and proved far more popular than Amstrad had envisaged. Writers, students, club secretaries and anyone else who needed to use words caught onto the 'More than a word processor for less than a typewriter' tag and the machine sold (in fact it got the Marketing Society's Consumer Durable of the Year Award in 1986). Soon the PCW8256 was joined by the bigger 8512 and then by the 9512, the machine that succeeded in projecting the more business-like image that the company was trying to convey.

The story, as far as we are concerned might well end there, but of course it doesn't. Clones of the IBM PC were big business but none too cheap. You still needed to buy separate units and you still needed support; it sounds all too familiar really. IBM had created the desire for the MS-DOS machine and Amstrad decided to satisfy it.

With the PC1512 and then the PC1640, the image of ill-respected trader in games machines was replaced by the image of ill-respected purveyor of computers *per se*.

Amstrad had now moved into the semi-legendary Brentwood headquarters. Nine hard business storeys from Chingford to China.

# Onward and Skye-Ward

Like many other British companies over the last year or so Amstrad have had their share of troubles. Redundancies, although a seasonal Christmas event at Amstrad, have not normally affected the Amstrad 'lifers' (the old guard) but in January of this year Mike Mordecai went.

Amstrad will be taking their name away from the games end of the computer spectrum(sic) and replacing it with the Sinclair name which they bought with much publicity. The audio-visual areas will bear the name Fidelity. This leaves the business computing end, into which the PCW, the PC1512 and 1640 and new PC2000 series fall, to carry forward the name Amstrad. The PC2000 series of business computers have not been welcomed with the same joyful zeal which greeted earlier products and Amstrad have been made to realise that the business

has very different priorities from their previous markets.

More money is going into research and development than before and user support is being upped. After twenty years and various product changes Amstrad would appear to be taking life more seriously.

The only real diversification has occurred with the Murdoch empire's Skye network which Amstrad/Fidelity are involved in with the production of dishes though this had been the plan for some four years. It seems assured that the company will now consolidate its ground with attempts to develop its own hardware. With MEJ and Locomotive software providing the technical know-how, and the company doing what it has always done best (which is to market products cheaply) the future looks solid rather than ground breaking.



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In terms of tree conservation, the Three Inch Thesaurus is a boon. All those £2.99 copies of Roget which lie in the bargain bins of large stationers represent forests.

The Thesaurus is designed to be used under LocoScript 2, or to be more precise under LocoFile. It comes on a B drive disc which has been very cleverly formatted to provide 784k's worth of data. This means that an 8256 without an additional B drive won't run it; nor will any PCW be able to back up the disc for security. Like LocoSpell, which doesn't allow you to add to the supplied dictionary, you won't be able to add to the Thesaurus either as the disc is packed.

You don't have to possess an in-depth knowledge of LocoFile to get the Thesaurus running. It is simplicity itself once the disc is inserted. The **Goto** [f5] command takes you to the record card which holds the list of synonyms you seek.

Search time is minimal when you consider the number of words stored and if the word can't be found, LocoFile gives you the message **No record found** and you are taken to the

next record, which won't be so useful.

Where Roget asks you for context (for example the word 'Run' as a noun, (cricket, tights) or as a verb), the Three Inch Thesaurus will shoot you straight into the one record card which holds that combination of letters. If you want speed but haven't quite mastered the normal thesaurus indexing system then this is probably just what you're after, but it can prove less than useful. The problem is that very few words have real synonyms; most depend on context to refine their meaning. If you aren't already certain of the precise meanings of the alternatives offered you could easily reduce your sentences to nonsense.

At least when you've found the synonym you desire, you can copy it to a block, return to your document, and paste it in with hardly any more keystrokes than it would take to type it in manually.

The Thesaurus is indexed by word or record number and as a few of the records extend over more than one card, you need to be prepared to use [f2] **Change index** to step through using the record number as the index to search on.

Speaking positively this mass of data makes good use of the facilities provided by LocoFile. It will find a group of letters in half the time it takes to pick up a book, turn to the index and read. As the Thesaurus is dependant upon LocoFile, a working knowledge of which is assumed, there is little to learn and no documentation is provided with the disc to teach you.

The range of words seems very limited and the synonyms offered can be misleading. At nearly fifteen pounds it isn't too expensive compared to other software (and there isn't another thesaurus to compare it with anyway), but then, it isn't actually a very good thesaurus.

Unless you are making a truly determined effort to implement the paperless office you'd be better off looking in the low tech book bargain bins.

<b>RANGE OF FEATURES</b>	<b>2/5</b>	<b>EASE OF USE</b>	<b>4/5</b>
<b>PERFORMANCE</b>	<b>3/5</b>	<b>DOCUMENTATION</b>	<b>2/5</b>
<b>8000 PLUS VALUE VERDICT 2/5</b>			

**FLIPPER (VERSION 2)****£29.95 • Software Imperative • 8512/9512s  
only**

Now for the good news. A piece of software which succeeds by doing a job which nothing else can do (save for another computer tacked onto the side of your PCW!).

The previous version of Flipper had a few shortfalls such as the fact that it wouldn't flip Mini-Office and had problems with LocoScript 2.2 – which is to say that it wouldn't work with either of the two most popular PCW packages; it doesn't have these problems any more.

Flipper comes with four programs on disc. The most important of these allows you to set up various types of environment within your PCW. The other three are utilities, one of which enables you to reset the environment the way it was before. The remaining two allow you to save the dormant other half of your PCW while flipped and to reload it at a later date.

This last ability is useful in any heavily menu driven software such as Mini-Office, as it enables you to leap straight into the database without fiddle-faddling about. Be warned though, when Flipper saves it really does save! Files of 240k and upwards in length can result – not much use on an A drive only machine. One consequence of the ability to save and reload a complete environment is that it allows you

to create two LocoScript environments. Who says you can't have two files editing under Locoscript?

FLIP2, the main program, sets up the various environments. These range from a large LocoScript environment on one side and a small CP/M environment on the other (and vice versa) to a range of what Imperative Software call Ersatz CP/M environments. These purport to be harder areas of CP/M able to handle software which might 'misbehave'; we ran Mini-Office and Stop Press from these with no trouble. There are seven variations to the basic FLIP2 command, which give a range of environments to suit most applications.

Flipper achieves all this by manipulating the PCW's memory and fooling it into thinking that it's smaller than it really is. Each flip actually saves a complete copy of the current environment into hidden memory and copies the environment saved in that hidden memory into the working one. The only real problem Flipper causes is the fact that you are unable to keep very much on either of the two M drives. This, however, is only a niggle if you tend to keep a great deal on your M drive in the first place and can be overcome with the occasional disc swap.

The manual is professionally presented and doesn't attempt to sell the product after you've bought it. All the information is given in a straightforward manner with no fuss and there are sections for both the new user and the technocrat.

Flipper 2 has managed to put right most of the problems that dogged the early release and came through our software compatibility tests with flying colours. Whether you wish to edit two LocoScript documents at once or play Leather Goddesses while SuperCalcing you're in luck.

<b>RANGE OF FEATURES</b>	<b>4/5</b>	<b>EASE OF USE</b>	<b>5/5</b>
<b>PERFORMANCE</b>	<b>4/5</b>	<b>DOCUMENTATION</b>	<b>4/5</b>
<b>8000 PLUS VALUE VERDICT 4/5</b>			



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EXCLUDE VAT  
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Single drive/256K Memory VDU Keyboard/with Dot  
Matrix printer/Software  
PCW 8512 ..... £405.00  
Same as above but with 512K RAM and a 1MB second  
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RSC PCW Printer/Power Extension 8256/8512 ..... £11.00  
9512 Printer Extension ..... £9.00

PCW 9512 ..... £399.00  
Daisywheel printer with exchangeable daisy wheels.  
512k RAM and paper white high resolution monitor.  
Re-styled case with PC type keyboard.  
Locoscript 2 - Locospell - Locomail

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Designed for the inexperienced users, for cash, or credit  
trade  
Single program disk; fully automatic Sales, Purchase or  
Nominal Ledgers. 999 Sales & Purchase accounts.  
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For businesses with above average Invoice output. Can be  
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#### • DATAfax •

Computer based Personal Organiser, which generates  
Filofax compatible output. Options available are:-  
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is also shown whilst in the Diary option.

Nolepad— Allows text entry in Free Format, can be used  
to hold notes in greater detail, than Diary mode. Tab  
settings are possible for easy printing of: Timetables,  
Expense sheets, etc.

Telephone/Address book— Entries stored as full entries  
or abbreviated; and a powerful search facility allows Fast  
Access to stored entries.

Diary— Features 4 days per page, which allows printing  
for one week to a whole year. On-Screen editing, includes  
Cut and Paste to other parts of the Diary via the  
Clipboard.

All Options can be printed in Draft or NLQ mode, on both  
or either side of the paper, to fit the Filofax, can be  
keyboard or mouse operated.

Mini Office Professional Plus.  
(includes Spell Checker and Thesaurus) ..... £27.00  
60,000-Word Spelling checker.  
25,000-Word Thesaurus.

Also, the original 5 modules, from Mini Office Professional

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The Spell Checker, can be used phonetically, in order to  
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words in all, enables one to substitute one word for  
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Master Scan.....£45.00  
You can reproduce any picture on your PCW screen- and print it out as many times as you like.

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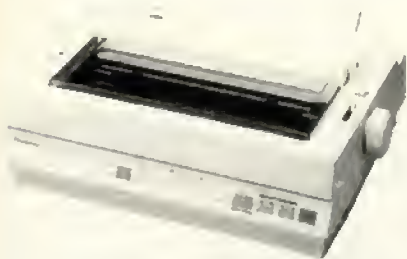
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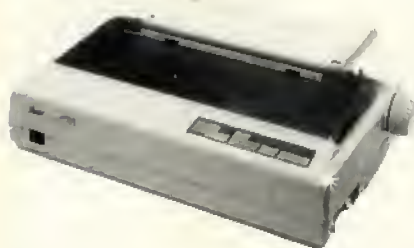
# PRINTERS

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24pin/192cps/63NLQ/Buffer:6KB (std);32KB (Option)



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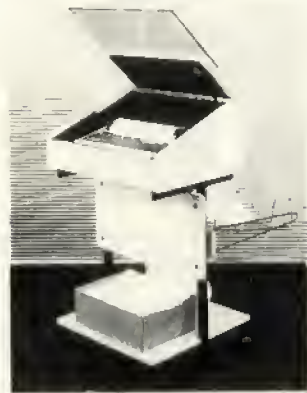
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Brather HL8. ....£1445.00



Star Laser 8-8pg per min/300dpiRes/8 Fonts. £1350.00

Amstrad PCW Printer Maintenance Kit.

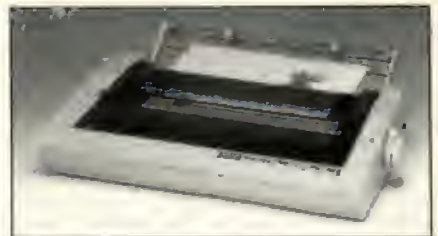
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## AMSTRAD PRINTERS



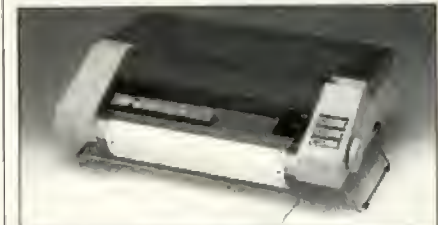
LQ50000 24pin/288cps/96NLQ .....£360  
Heavy Duty Parallel and Serial I/F.



DMP4000 200cps F/T/50NLQ/136col. ....£275.00



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A must for every Workstation. No more looking down. They can be positioned at almost any angle.

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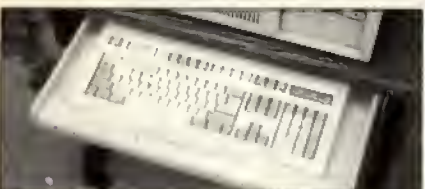
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The S25A KD Printer stand for 80 column printers, and S25B Printer Stands. Paper feeds from underneath and the dial adjustable paper feed plate automatically guides the paper onto the collection rack for neat stacking. Sturdy steel & plastic construction with space saving design.



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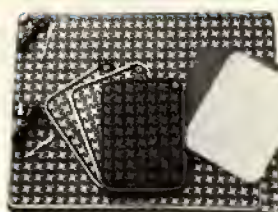
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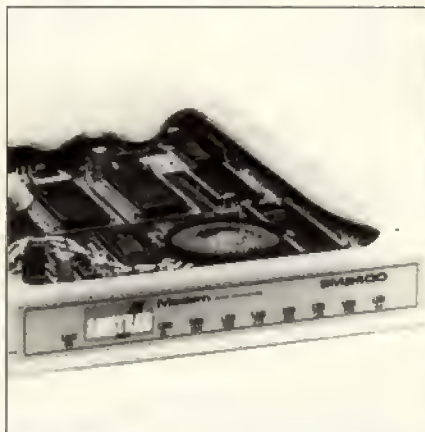
Mannesmann Tally MT81 .....	£125.00
Entry-Level PC Printer. 9pin/130cps/NLQ 155cps/26cps	
Correspondence Text Quality. 130cps Push Tractor Feed	
80 cals at 10cpi. Compatible with Epson Fx85/IBM	
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## AMSTRAD MODEM SM2400

Connects to standard RS232 simply plug into any RS232 port. All Speeds up to V.22BIS



Amstrad SM2400 ..... £225.00

RSC offer full 1 Year Maintenance on all PCW machines. costs are as follows:

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The RSC E21A Keyboard Storage Drawer, sturdy steel & plastic construction. PC keyboard locates in the tray which can be tucked out of sight when not in use. Saves space on your desktop & protects the keyboard from dust & dirt. CPU and monitor stack on top.



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KX-P1124 - Panasonic Sheetfeeder .....	£95.00
KX-P1520 - Panasonic Sheetfeeder .....	£169.00
62/63/6500 Juki Sheetfeeder .....	£209.00
Just a Selection - Please call for other Options.	

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Callers welcome



# ALTERNATIVE BASIC

Do you need a faster Basic? Steve Keen takes a look at ZBasic

Mallard Basic has a lot of built-in advantages: for a start it comes free with the machine. But there's always that feeling that people aren't taking your programs seriously; 'Oh, it's only Basic', they say.

The ideal arrangement would be to find a way of producing professional looking programs without leaving the comforts of a tried and trusted language. What's needed is a new kind of Basic.

If the only reason you haven't persevered with Basic is because you can't take it seriously, then you've made a mistake: there are professional software houses who program in nothing else.

Most people are aware that other computers come with versions of Basic which are all in some small way different from the PCW's Mallard Basic. What isn't so generally appreciated is that there are other versions of Basic available for the PCW machine. One of the best of these is Zbasic.

Zbasic is unique in being an 'interactive compiler'. Normally, compiled languages require you to prepare your program listing with a text editor and then use the compiler to produce a COM file. If there are any errors in your program then you've got to go back to the text editor and put it right.

With Zbasic the editor is built in and developing programs can be done in exactly the same way as with Mallard Basic. When you type RUN the program is compiled at 40 lines per second so there is hardly any delay except on the largest of programs.

If the compiler hits an error, it automatically puts you back into the editor at the right place in the file and with the error marked with a zero. Once a program compiles it will at least be syntactically correct even if your logic is wrong.

Although the editor generates line numbers for editing purposes the compiler doesn't use them. Program jumps to subroutines are made using linelables: the line GOSUB "work\_out\_the\_vat" will mean more to you in six months (when you decide to add a few features) than GOSUB 1250 would have done.

## Fast worker

When the program is compiling without errors it can be saved to disc as a COM file with the command RUN\*. It now looks exactly the same as if it had been written in Pascal or C — and more importantly, it runs just as fast too; up to five times as

fast as Mallard Basic programs can work. Another bonus is that Zbasic programs can handle a lot more data in memory; once compiled, they don't need a Basic interpreter present to run as Mallard does.

Zbasic can be obtained in a CP/M generic form which you can install to suit yourself or you can get it already installed for the PCW. Once installed it is far more machine specific than Mallard; for example, to clear the screen it's only necessary to type CLS.

## Supply Side

An uninstalled version of Zbasic (£79 + VAT) can be bought from Grey Matters; Advantage (0242 224340) sell an installed version at £59 + VAT. It's also available within the public domain. Send a formatted disc and £3 to Steve Keen, The Elms, Kimblewick Road, Great Kimble, Aylesbury, Bucks, HP17 8TD.

## SAMPLE ZBASIC LISTING

```
REM Zbasic string input validation for
numbers
CLS:PRINT@(0,0):PRINT"Press s to
stop"
DO
  LINEINPUT AS
  AS=UCASE(AS)
  GOSUB "valid"
  IF T/2<>LEN(AS) THEN PRINT AS"
is not a number"
  IF T/2=LEN(AS) THEN PRINT AS" is
a number"
```

```
UNTIL AS="s"
STOP
:
"valid"
T=LEN(AS)
FOR X=1 TO LEN(AS)
  TEMPS=MID$(AS,X,1)
  Z=ASC(TEMPS)
  T=T-(Z=46 OR (Z>47 AND Z<58))
NEXT
RETURN
```

FEATURE	MALLARD	ZBASIC
ISAM (Indexed sequential access method) based file handling	Jetsam gives Mallard a big edge over other Basics when it comes to building business applications	Zbasic has no ISAM commands but does have random access commands that are easier to use than Mallards
keywords	Mallard distinguishes between keywords that are embedded variable names and those that aren't. The variable LONG\$ is valid in Mallard	Zbasic doesn't allow keywords to be embedded in variable names. The construction TOTAL\$ contains the reserved word TO
String operations	Mallard allows nesting of complex string operations like V=ACS(MID\$(t\$,x,2)) without any problem	Zbasic likes it's functions opened out more. The expression just used would need to be tt\$=MID\$(t\$,x,2) and then V=ASC(tt\$) or expression too complex would result
Control loops	In Mallard the IF statement has to be all on one line. FOR NEXT and WHILE WEND are multi line of course	In Zbasic there are multi line IF THEN ELSE statements as well as DO UNTIL loops. There are also FOR NEXT and WHILE WEND
DIR and FILES abd FIND\$	These are the commands that allow you to display a directory on screen from within Basic and to check that a file is on disc	Zbasic requires you to write your own routines for these functions though you can trap disc errors (so that the program can't crash)



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# THE SKY

Is the PCW boldly going where it has never gone before? Sharon

Patrick Moore; late night 'window onto the sky' television shows; Lilliputian scientists in white coats training giant telescopes onto the star-studded firmament from deserted, mountain-top observatories – these are the sort of images that spring involuntarily to mind whenever we think of star-gazing.

Perhaps the last thing we'd necessarily think of is the humble PCW acting as intermediary between man and stars. Yet a new package called StarTrack, from Discovery Software, is, at last, bringing the night sky within easy reach of everyone by way of the PCW screen.

## STARTRACK

£14.95 • Discovery Software, 291

Cricklewood Lane, Childs Hill, London NW2

For any PCW owner who harbours a deep and abiding (or even nascent) fascination for things astronomical, this program is worth examining. It's true, of course, that astronomy can never be a finite, completed subject and that researchers, including amateurs, are contributing to it every day; using StarTrack, however, you can display on your computer screen at some time or another all of the 88 constellations and 600 or so stars that are recognised by today's astronomers.

### Beam me up, Scotty

How you see those constellations and stars depends on where you are on the earth's surface when you look up into the sky. This program allows you to enter the latitude and longitude of your chosen location (which could be anywhere on earth) before you start using it; the stars are then shown on the screen exactly as they would appear to the naked eye were they viewed from that place.

It can also show how the position of the various constellations and stars viewed from that specific region

would change depending on the time. As well as being able to specify place, you can choose the time of day in any month for any year that happens to lie between 1000 and 2999 AD.

### Picture this ...

Reading StarTrack's manual is essential if you're going to get the most out of the program. Every time you enter the program, for example, you can choose whether you view the sky from the North region, the South region or the Central region of Earth. Not surprisingly the view alters dramatically from region to region. The section in the manual entitled 'Interpreting What You See' is an easy-to-understand and enjoyable explanation for the benefit of the novice astronomer as to why this is so.

The section begins by inviting you to peel an imaginary orange; you take a strip all around the middle of the orange so that you're left with two caps at the top and the bottom which you peel off in turn.

Imagine reassembling the peel as if to re-enclose the fruit that was originally inside it; then, suspend yourself in the middle so that you're surrounded on all sides by peel, rather like being locked inside a ball. The caps of peel immediately above and below you are equivalent to the North and South regions, while the cylindrical band in the middle represents the Central region.

As you're hanging suspended and stationary, imagine that the peel around you is rotating. The two caps above and below will appear to be rotating quite quickly around a fixed point located somewhere in their respective middles. The cylindrical band straight in front of you which covered the widest part of the orange, on the other hand, will appear to be moving in a straight line horizontally across your field of vision.

The same principle applies to StarTrack; instead of orange peel, though, you've got the whole of the sky that envelopes the earth spinning slowly around you. This explains why the stars appear to be moving in different ways depending on where you are.

### Beyond the horizons

Before you start locating features, you have the choice of calling up through the Utilities menu and displaying on the screen either or both of two 'landmarks': the horizon and the ecliptic.

The horizon is especially useful to have visible on the screen at all times as it is a roughly circular area which indicates that part of the sky which would be visible to you from the ground; the program will be able to deduce the

### As broad as it's long

For those who plan a real whistle-stop tour of the night sky from as many different locations as possible, there's a comprehensive list of the latitudes and longitudes of most of the prominent towns and cities throughout the world – from Phnom Penh in Kampuchea, for example, to Reykjavik in Iceland.

## Manual dexterity?

The manual is excellently written and forms an invaluable part of this package. Our only criticism was that it seemed at times to have been put together back to front. You don't arrive at some of the more essential stuff until the end, by which stage the less tenacious learner might have given up all hope of ever really understanding what's available.

Some exercises have been included in the back to help you find your way around the package and discover exactly what it's

capable of doing. This section provides you with step-by-step practice in setting up your location, examining constellations, cycling through time and locating the North Pole Star (Polaris to its friends) – to name but a few examples.

Also thoughtfully included at the back of the manual are lists of recommended books, television programmes, magazines and other sources of interesting information for astronomers.



# AT NIGHT

Bradley tiptoes into the gloaming and takes a look ...

limits of your horizon from the longitude and latitude references that you recorded earlier. When you start locating the constellations and stars that are accessible to you from the region you're in, you can then see which stars would be visible to you (on a clear night with sufficiently powerful binoculars or telescope).

The ecliptic on the other hand can appear as a circle which intersects with the horizon in the North and South regions. This charts the path of the sun and, broadly speaking, the moon and planets in their journey through the heavens. Because the ecliptic describes a circle, it appears as such in the North and South regions. In the Central region, however, it appears on the screen as a wavy line (or sine curve).

## Reach for the sky

Once you've learnt to interpret and appreciate what the program can do, actually putting it into operation is simplicity itself. Two menus are constantly visible on the left hand side of the screen; the first of these is called the Sky Menu from which you can locate, identify and clear all the constellations that are available to you in the region that you've chosen. Once you've selected the 'Locate a constellation' option, a rectangular box will appear with the name of a constellation in it. To see it charted, press [ENTER]; if you want to move on to the next constellation, press the right arrow key.

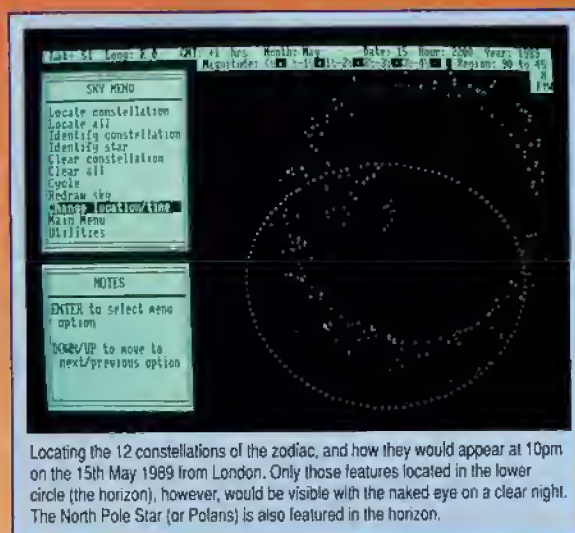
The program also allows you to identify individual stars within those constellations by making them flash intermittently on the screen. They can't, unfortunately, be left on the screen without the rest of the constellation to which they belong.

It is from the Sky Menu that decisions like the exact time and place of viewing are taken. Any changes that you make here will be registered on the location/time display that is constantly visible across the top of the screen. You are prompted to enter the latitude and longitude of your precise location, whether or not British Summer Time is required, the month, date, time (to the nearest hour) and the year.

The Cycle option is unusual, but very useful in that it automatically transports you forward by a month at a time so that you can see how the stars change their apparent positions during their year-long journey through the sky.

The Sky Menu also gives you access to the Utilities Menu where you can, among other things, decide whether or not you want the ecliptic and/or the horizon to be shown on the screen before you get down to some serious star-gazing.

The second menu that is constantly available on the screen is called the Notes menu. This is basically a continuous on-screen prompt menu which reminds you of all the alternative courses of action that are available to you at any one time.



Locating the 12 constellations of the zodiac, and how they would appear at 10pm on the 15th May 1989 from London. Only those features located in the lower circle (the horizon), however, would be visible with the naked eye on a clear night. The North Pole Star (or Polaris) is also featured in the horizon.

## STARTRACK

### PLUSES

- ▲ Easy to use
- ▲ Excellent manual
- ▲ It can be used anywhere at any time
- ▲ Good for testing your knowledge

### MINUSES

- ▼ Would have been more interesting with the moon and planets included as well
- ▼ You can't locate stars in isolation
- ▼ Screen displays quite bland

### RANGE OF FEATURES PERFORMANCE

3/5

### EASE OF USE

5/5

### DOCUMENTATION

5/5

**8000 PLUS VALUE VERDICT** 4/5

## It'll be Orion on the night!

The program could perhaps have been improved by making it slightly more involved and including other features – like the moon and planets. Its interest appeal would then have been more sustained as far as the dedicated astronomer is concerned.

If you're not particularly well-versed in astronomy or you haven't, as yet, gleaned everything that there is to learn from the manual itself, early dabbings in the program can result in what looks like an unsightly, not to mention utterly meaningless, rash breaking out all over your screen. Once you've learnt to interpret what you see and manipulate the various commands that the program offers, however, you'll probably never look back (or should we say down?) ■

## Twinkle, twinkle little star

The brightness of a star, determined by its size and distance from the Earth, is commonly known as its magnitude. Each star is graded according to the strength of its twinkle; the brightest stars, for example, have a magnitude of -1, while those just about visible to the naked eye have a magnitude of +5. Experienced astronomers, however, are able to identify stars of magnitudes up to +15 and beyond.



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Once all your data has been typed into the database you can begin to make some use of it, and obviously what you're going to want most are printed reports: after all, if you only wanted to look up names and addresses a personal organiser is faster, easier and a lot more portable.

Of course there are a lot of things a personal organiser can't do - like showing you a specific piece of information only, performing a conditional search, printing a list of everyone in a particular town, or filling in letters automatically for a mailshot. A personal organiser can't perform mathematical operations on information in your database. LocoFile can do some of these things on its own and all of them in conjunction with LocoMail.

We'll consider the simplest requirement first. Verifying the information in a big database can be difficult, and the easiest way to do it is to get it all out again. Most individuals and companies that make heavy use of databases can be found poring over apparently endless printouts; it's a lot easier to spot errors - and redundant entries - on a printout and these can easily be marked up for later correction.

These printouts can be obtained from LocoFile's [f4] menu, and as with most things from Locomotive there are further choices to be made. It's possible to print out the entire database, records you've changed since the session began, or the current record. Furthermore, you can print the whole record or just an extract from the record. This last option is worth looking at in more detail.

If you choose Extract from the print menu you get a sub menu with the items available for printing; these are selected in the usual way by putting the cursor on them and pressing [+]. The main use for this facility would be in printing one-across address labels.

### Just for the record

How these records print out is rather clever. The **Whole record** option prints each record just as it looks on the screen, one record per page. For this reason it's important that the paper size specified in the datafile setup should match the paper you're using.

Of course, if you had 11" continuous paper and had defined a card with a number of lines that conveniently divided into 66, then you could leave it as it is. If not, then you'll find your records printing across the perforations.

If you're printing labels then you want a page size much smaller than your card size. The way to get this is to go into printer control state and alter it from the [f3] menu; you'll get an error message telling you that the paper types don't match but it doesn't matter - just select **Use current paper**. Now you will be able to print labels from cards many times their size.

When printing extracts, the data is handled rather differently depending both on the card layout and the items selected. Items are printed out in the order in which they appear on the card as you read them - left to right and top to bottom.

# BASED ON THE FACTS

Constructing your database is merely the prelude to getting reports out of it

A database, once filled with data, can be a powerful business tool. All that hard work you put into designing it and keying in the right information was to make your life easier in the longrun. The really important thing about a database is its reporting facilities. LocoFile, in conjunction with LocoScript, provides a flexible system for producing reports.

The screenshot shows the LocoFile software interface. At the top, it displays 'A: group 0/DATAFILE.000 LocoFile.' and 'Printer idle. Using A: M:'. Below this, there's a menu bar with options like 'f1=Actions', 'f3=Paper', 'f5=Printer', 'f6=Left Offset', 'f7=Document', 'f8=Options', and 'EX11'. A sub-menu is open for 'f3=Paper', showing options: 'Paper Type', 'A4', 'Portrait (Tall)', 'Landscape (Wide)', 'Use Paper Type', and 'Show Paper Type'. The main window displays a record for 'S6 Spinach Street' with fields for 'Street name', 'Street name2', 'Town', 'County', and 'Post code'. The record data is as follows:

Street name	Street name2	Town	County	Post code
S6 Spinach Street		Vegetalis	Gwent	GF6 4XS

At the bottom of the screenshot, there's a note: 'To print labels from a card containing addresses, it's first necessary to change the paper type by going into printer control state and selecting [f3]. Go to show paper type and either select or create a label type.'

If two items share lines, that is if they overlap horizontally at all, then they will normally be printed on the same line with a space between them. If items don't share any lines then they will just be separated by a carriage return on the printout.

The extracted printouts can be ordered on the index of your choice (as can the printout from the **All records** option). Make certain, however, you're using an index without sub-indexes or you'll annoyingly find records being printed out more than once. This can be confusing as well



For free

When in Database setup mode, especially with a file you've been using, the message 9% free, or whatever, can be a bit worrying. It actually refers to the amount of space inside the database where records have been deleted. If this number gets overly large then its time to squash the database and squeeze out the wasted space - but make certain you take a back up copy first!

as wasting trees.

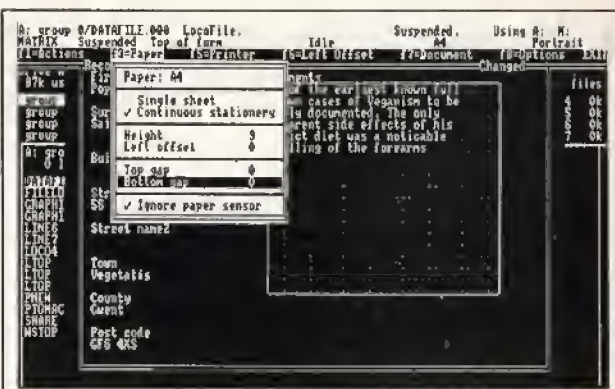
Extracting the Michael

More usefully, LocoFile will be used as a source of data for letters or reports. Data is first copied into a standard LocoMail document before being printed out. The method is very similar to that for printing directly.

The first thing is to go into LocoFile from the [F1] menu and select the record you're interested in. Once found, use the [F7] menu (Extract). This menu offers several options including **Select all** and **Extract items** which work in the same way as already discussed. At the top of the menu is **To block 0** which is used to select the block you wish to copy the data into. You can copy data into a maximum of ten blocks and once copied it remains in them when you exit from LocoFile.

If you entered LocoFile from a document, then exiting it will put you back to where you were. Now you can simply [Paste] the block into the document or a series of documents (and more than once into a single document if you need to).

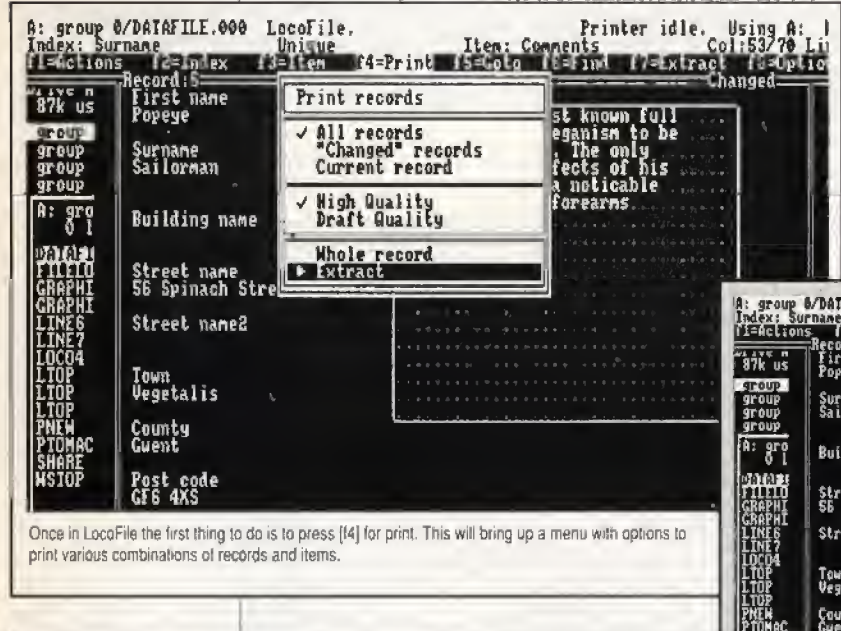
The way the information will be incorporated into the document is slightly different from the two previous cases.



If you don't have a label type it takes only seconds to create one from an existing continuous paper type. Select this as the paper type in use.

Items which were on the same line, or overlapped, will appear in the document separated by a space unless they also had an item name between them; then they will be separated by a tab. Basically then, if there are two items on a line with either item names to the left of right hand items (at 8, 9, or 10 o'clock), or item names to the right of left hand items (at 2, 3 or 4 o'clock), then there will be a tab; otherwise it will be a space. Items on different lines will be separated with a carriage return.

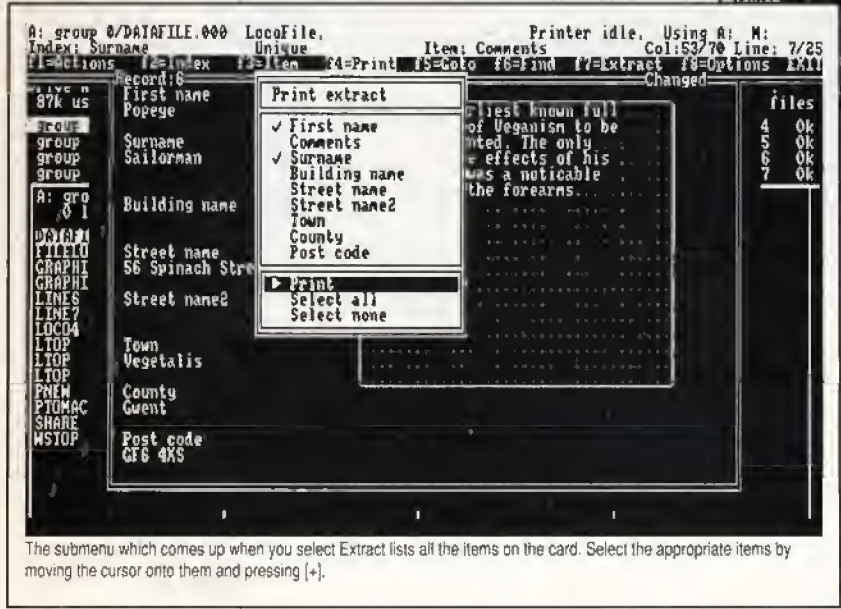
Using these rules it is possible to arrange a card so that the extract facility can be used to lay out data in some specific manner to suit your documents. This flies in the face of the advice given last month (to lay your cards out for maximum readability) but can be justified in exceptional circumstances.



Once in LocoFile the first thing to do is to press [F4] for print. This will bring up a menu with options to print various combinations of records and items.



When you select Print from the Extract sub-menu a message box will appear warning you of the paper mismatch; ignore it and press [RETURN], the cursor will already be on the correct selection.



The submenu which comes up when you select Extract lists all the items on the card. Select the appropriate items by moving the cursor onto them and pressing [+].

● **Flexible filing**  
LocoFile becomes really powerful when used in conjunction with LocoMail and for any complex automatic processes you will need both. LocoMail allows the items on card to be arranged wherever and however you like in a document as well as allowing conditional searches of the database. Next month we discuss ways of extending the range of applications beyond simple card index file functions by incorporating LocoMail commands into documents intended to work with LocoFile.



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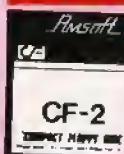
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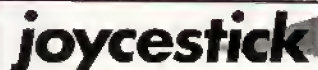
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# BOOK SALE

Part 2 of our DIY publishing series: marketing your own books

The temptation when arranging to self-publish a book is to sort out the technical details concerning typesetting, design and printing, but to leave all thought about how you're going to sell it until there are several cardboard boxes back from the printers piled high in your living room. But as anyone who's tried publishing a book will tell you, the most important, and probably the hardest, part of the whole operation is the marketing stage.

**A** key rule in self publishing is to consider who your readership will be before you take the decision to self-publish. Keith Smith, in *Marketing for Small Publishers* (now dated and out-of-print, but hopefully soon to be revised), suggests that having first identified your obvious target readership, you should then reverse the process and brainstorm all other possible markets for the book.

In other words, a book on Mountain Goat Farming will appeal mainly to mountain goat-farmers; but additional sales may be picked up through, say, agricultural colleges or government agencies dealing with farming issues.

Once you have an idea of who you expect your readers to be you can consider your marketing strategy: will you be relying on bookshop sales, for example, or perhaps selling by mail order direct to the public?

You should also think carefully at this stage about what the retail price of your book will be: at least this will remind

you of the underlying commercial realities of the whole operation. Some would-be publishers, having discovered from a printer's quote that they can get, say, 2000 copies of their book printed for £3000 proceed on the assumption that any price over £1.50 is likely to mean profit.

## Multiple problems

Unfortunately, although printing is the most visible expense in producing a book, it's not the only one. There is a publishers rule-of-thumb which uses a multiple (typically of 4 times, or 5 times the direct print cost) to calculate the retail price. In our example, therefore, the book would end up priced at £6 or £7.50.

To understand why all this 'extra' money is needed, it helps to know how the book trade works. As well as giants like W H Smiths and John Menzies, and the national chains like Dillons, there is a network of small independent bookshops. These shops will expect to buy books at between 33 1/3% and 35% discount, with the publisher (you) paying carriage. Exceptionally, very small orders may receive only 25% discount, or be subject to a 'small order surcharge'. The big bookshop chains will expect much higher levels of discount, usually well into the 40%.

If these discounts seem a lot, it's worth remembering that bookshops carry enormous stocks relative to their sales. In general independent bookshops operate on small profit margins.

Bookselling normally works on a straight 'firm sale' basis – though most publishers are usually tolerant of occasional



requests from booksellers to return books in exchange for credit notes.

## Representative sample

So, if you're selling through bookshops, £1.50 of your £6.00 is already earmarked. But your first problem is to ensure that shops will actually take your stock. There are, after all, over 1,000 new titles published each week.

Most booksellers order their stocks during visits from publishers' representatives (reps), who turn up with cover pages and a good line in informed but efficient sales patter. Larger publishers have their own team of reps, while smaller publishers often use freelance reps, who will take orders for several publishers during one visit. Booksellers can also sometimes be tempted into ordering by telephone selling – or by an advert or an editorial mention in the trade newspaper *The Bookseller*.

The self-publisher may wish to consider employing his own repping agent. The Book Publishers' Representatives' Association publish a list of their members. Reps typically charge a commission for orders placed by shops within their agreed geographical area of about 10%-12 1/2% of invoice price (about 37p-45p on a £6.00 book).

You'll also need to think about the distribution of your books, and the expenses incurred in warehousing, packing, invoicing and credit control work. Once again, there are a number of companies, including larger publishers, who will take this work on. Keith Smith suggests that a typical charge might be 16% of invoice value (about 60p of £6.00).

## Join the club

Not all books are sold through bookshops; bookclubs are an important additional opportunity for sales, since they are a way of tapping a separate market for books. If you're lucky and there is a specialist bookclub for the subject covered by your book, you may be able to increase your print-run and reduce your average costs in this way. Remember that in exchange for taking a large number of copies, the bookclub will expect a very substantial reduction on retail prices.

Library sales are another possibility. You should inform the main library suppliers of the intended publication of your book – you might also consider binding up a few copies of the book as hardbacks, at a premium price. There are lists of library suppliers in the *Directory of Publishing* published by Cassells, and in the *Professional Publishing Media Directory* – both available in large reference libraries.

Library suppliers and libraries will expect to see an Advance Information, or AI, sheet before your book is published, ideally several months before publication. An AI sheet simply sets out briefly the contents of the book, together with technical details about its size, pagination and price. It is also helpful to include a brief biographical note about the author and details of any special promotion.

Als can also be used when repping bookshops. A good tip is to ask your printer to run off a few hundred extra sheets of your front cover or dust jacket design, and then print your AI details on the reverse side.

# Numbers count

Almost all books carry an identifying International Standard Book Number (ISBN). ISBNs are issued free on request (phone 01-836 8911 for details) by a section of the book trade company J. Whitaker, who also publish *British Books in Print* and other book directories. Make sure your book is listed in *British Books in Print*.

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## Lateral thinking

Bookshops, bookclubs and library sales are the familiar outlets used by publishers to sell their books. What about other ways? One possibility may be to pick up sales as travel writer Richard Binns did, by striking deals with companies or organisations looking for promotional products. Of course while this may be relatively easy if you've published a guidebook to French restaurants it could prove more difficult if your subject is *Scandinavian Matchbox Designs 1925-1931*. Don't forget too that any special deals you arrange should extend your total market, and not just reach those people who would have bought your book at full price anyway.

Mail order remains the most likely path for self-publishers to follow. By dealing direct with the final consumer you avoid dealing with the mainstream booktrade.

However, mail order is not without its difficulties. How, for example, do you reach your potential customers? Should you choose advertising and if so, which papers or magazines will you use? Should you try direct mail-shot and if so, how do you acquire likely mailing lists? Assuming you are successful in attracting orders, are you going to handle the tedious work of distribution yourself or arrange for someone else to do this?

The key is to work out exactly who your likely customers are and then develop a strategy for reaching them. The Royal Mail produces a free forty-page booklet "Guide to Effective Direct Mail" and offers a number of free and low-cost mailings. Some of the publications of the British Direct Marketing Association may also prove useful (01-630 7322).

There's now an established market in mail lists, provided by 'list brokers' (again, the BDMA has a leaflet with their names). However, you may be able to acquire useful mailing lists for nothing – membership lists of organisations which you belong to, for example; even better, try to piggy-back on mailings which would go out anyway.

Finally, monitor where your sales are coming from – a good technique is the old trick of asking people to write to Dept X, where X is a code for the particular newspaper or mailing list used.

## Casting Your Nets

Books are the only item where resale price maintenance is still legally permitted, and most books are sold at a standard 'net price' below which booksellers are not normally permitted to go. However, publishers can choose to make their books 'non-net', and most publishers do so for school textbooks and other educational books.

The Net Book Agreement is under fire and may not last out the year. This could be bad news for small bookshops: the chain stores will be tempted to undercut them on mass market titles but price-cutting is unlikely on specialist publications.

## Trading places

If you're thinking of using a rep or a distributor, it's very sensible to get good advice first. Try talking to independent booksellers in your area – most booksellers pride themselves on their knowledge of the trade, and many will be pleased to offer advice. They will know which reps are efficient, and which distributors can be relied to get books out promptly.

# Perfectly clear

One self-publishing author who may be well known to users of PCWs is Tony Johnson, whose *Clarity Guide to LocoScript 1* has now reached three editions, and who recently added a similar guide to *Locoscript 2*.

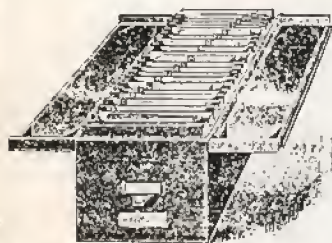
"Selling is the hardest part of self-publishing", he says, "not in terms of man-hours but in terms of how you do it." He says that the success of self-publishing depends on whether the market opportunity exists for a book. He advertised his first *Clarity Guide* through small advertisements, monitoring the response to see

which were most successful. He then used his list of existing customers for a mail-shot, when the new *LocoScript 2* book was published. "Now we sell almost all the books by word of mouth – people show them to their friends, and it just carries on by itself," he claims.

He undertakes the distribution and administration himself, a task he freely admits isn't his favourite in the world: "I would prefer to be doing something else. Believe it or not, I do have other things to do that interest me more."



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**HOW TO SOLVE IT IN LISP**

by Patrick J Hall

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LISP is currently the most widely-used programming language in Artificial Intelligence. The aim of this book is to introduce it to the complete novice and show, that despite its reputation, it can also be used very successfully for other programming applications.

Hall uses Golden Common LISP - a fairly standard LISP dialect that has been successfully implemented on a number of machines. Unfortunately, though there are at least four LISPs for the PCW this isn't among them. Hall uses an IBM PC or compatible machine but the book will also be useful to those using any LISP on other machines.

Hall sets out to introduce LISP as painlessly as possible. He is also a firm believer in thoroughly testing out each new idea at the keyboard as you go along. Most of the applications to which he puts the language show a distinctly mathematical bias (Common Golden LISP has very refined number-handling facilities) but they are in areas which should be roughly familiar to the majority of readers; anyone who ever touched on maths in school, basically.

Hall's style is both straightforward and readable. His chapters are detailed, each one beginning with a thorough introduction that helps you form some sort of an overview of the feature or concept that he is about to introduce and finishing with a point by point summary of all the most important learning hurdles that have been covered.

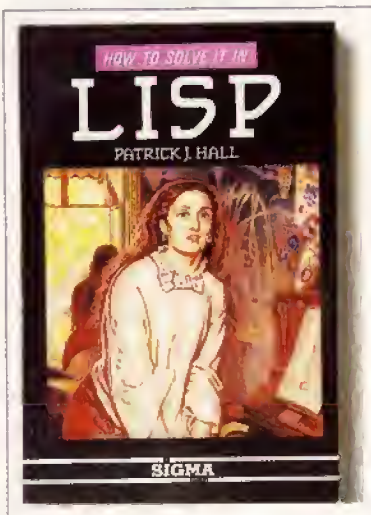
He begins by describing the most fundamental concept of the language: list processing (hence its name). He then goes on to outline the basic LISP mathematical functions of addition, subtraction, multiplication and division, illustrating each with a simple example of a context in which they're likely to occur.

He's particularly good at finding simple analogies to clarify the process that he is introducing. In Chapter Two, for example, he stages the exercise of ironing the creases out of a shirt to illustrate the language's control structures of loops and conditional branching: you iron a shirt; if creases remain, you repeat the process. If the task has been completed satisfactorily, then the chances are you will probably want to go on and tackle something else.

Chapter Nine explores LISP's biological simulation potential using system dynamics. That way, recreations can be conducted on a pleasantly manageable scale. Pilots, for example, may want to test their reactions under a particular set of circumstances without ever risking their aircraft or their lives.

The book rounds off with a look at LISP functions to recognise geometric shapes and machine learning directed towards expert systems (systems which provide ready access to specialist sources of knowledge without involving any degree of human interaction).

For anyone wanting to know or learn more about this language, *How To Solve It in LISP* will make for a thorough, approachable and demystifying read of what is potentially a pretty arcane subject. ■



**HOW TO SOLVE IT IN LISP**  
ISBN 1 85058 005 7  
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# BOOK LOOK

A new look at LISP, the language of AI, and a programmers' mail order catalogue

**THE CP/M SOFTWARE LIBRARY**

Some books provide you with knowledge; others give you the keys to unlock it. This book, which has just been issued free to every member of the CP/M Users' Group, falls into the latter category. It's basically an update of the public domain program collection held by the CP/M Users' Group last published in July 1986. For CP/M User Group members, the software can be obtained from the library for no more than the cost of copying it.

The library is very comprehensive - bordering on the esoteric in parts. It includes, for example, a suite of programs that calculate the most conducive times for bouncing radio programs off the moon, the first ever adventure game complete with source code so that you can add your own spills and thrills, and one of the best implementations of Pascal around. There are at least ten programming languages included in all. And for the really disturbed among you, there are programs for translating 8080 mnemonic codes into Z80 codes.

Another major difference between this edition and the last is that all of the software included has been rigorously tested to make sure that it will work (though not necessarily on a PCW).

The catalogue is split up into five sections according to the user groups who maintain the software collections: the CP/M Users' Group, which was the first group to be set up in the States; the SIG/M group, a specialist group within the New Jersey Amateur Computer Club; the C Users' Group, which supports software covering all dialects of the language, the Dutch CP/M Users' Group and finally (but by no means least) the UK branch of the CP/M Users' Group.

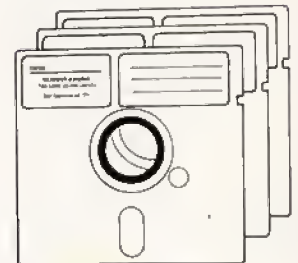
It's also worth noting that most of these programs originated in the USA simply by virtue of the fact that all software written in the course of university research there automatically enters the public domain. Most of it is also supplied with its source code, so that if an application doesn't

conform exactly to your requirements, you can mould it to suit you.

This catalogue contains somewhere between a quarter and a fifth of all the software currently in the Public Domain. It's a book that offers considerable potential and variety, and, as such, should be a prominent, not to mention permanent, addition to the bookshelves of any serious CP/M user.

If you're at all interested in joining the CP/M Users' Group, contact Dianna Forde, CP/M User Group, 72 Mill Lane, Hawley, Dartford, Kent DA2 7RZ for further details. ■

The CP/M  
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CP/M & MSDOS Users Group  
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The Japanese Fifth Generation computer project is using LISP almost exclusively in its drive to produce computers and programs capable of complex decision making in business and manufacturing environments. If they succeed it will give them the competitive edge they need to lead world economies into the next century.



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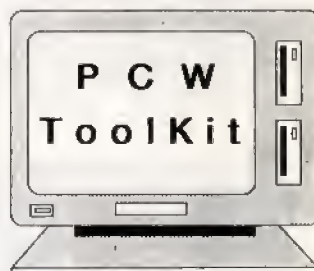
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**W**earing other hats in other magazines, I also review science fiction... but I never thought for one minute I'd cover an SF book here. It's not so much the book as its introduction, which unites two favourite themes: the unreliability of statistics and the often hilarious results of applying machine analysis to our slippery English language.

For an enjoyable if dated look at the first theme, see Darrell Huff's *How To Lie With Statistics* (1954). This covers many classic cock-ups, like the American opinion poll which selected its thousands of victims totally at random from the telephone directory but was still dead wrong about the election. (Phones weren't quite as universal then, and the selection method ruled out hordes of less well-off voters.)

As for my jaundiced views on how computers look at words... see the column in issue 30.

### Number games

Here's the book, *The Best of the Nebulas* edited by Ben Bova. The Nebula awards for SF stories are voted on by members of the SF Writers of America, an organisation which anyone can join on the strength of three short published stories. They've been presenting these awards since 1965; this is a 'best of the best' anthology.

What's perched by my keyboard is an uncorrected proof copy from Tor Books (New York)... so before actual publication, some editor might yet remove the points which caused me to say loudly, 'Oi!'

As early as his third introductory sentence, editor Bova gets into trouble. As judged by SFWA, the anthology 'contains absolutely the best SF stories published between 1965 and 1985'.

### Nebulous statistics

Oi! Here's a thought experiment. Imagine that 1980 was a terrifically good year and saw the publication of the best, second-best and third-best short SF stories of 1965-85. But only one, naturally, could win the award. (We'll assume it's the best, although short-term log-rolling is rife, and as Bova admits, opinions shift with time.)

Then the SFWA members who voted on the contents of this anthology couldn't possibly pick the second- or third-best stories: they

won no Nebula and are excluded, unlike the fourth- and twentieth-best, which did win in leaner years.

Then, how to conduct the actual voting? Bova polled North American SFWA members only, since: 'Overseas membership is too small to have a significant effect....'

Oi! Two more thought experiments. One: our government excludes all 'fringe' parties like the Green Party or SLDLSP from the next election because they're too small to affect results. Two: Bova notices that SFWA has only one member in, say, Kansas. Does he exclude Kansas on the same logical ground? Does he hell.

(One reason SFWA overseas recruitment remains small is that members in funny foreign countries like Britain feel they're not considered 'real'. Bova certainly adds to this impression. Example from my own experience when a member: SFWA refused to handle a dispute with my publishers, which is supposed to be one of its functions. The UK Society of Authors browbeat said publishers into a cash settlement for crimes in breach of contract. Moral: join the Society, not SFWA.)

### Word play

Best of all is the description of how all the voting questionnaires were analysed by fantastically sophisticated software which actually... compared the frequencies of the words used!

This sounds suspiciously like the program I wrote years ago and called GREASE in honour of David Lodge's nifty novel *Small World* (where similar software plays, as it were, a bit part). I meant it as interesting and maybe illuminating fun; Bova says it's a powerful tool for determining covert opinions and attitudes.

Thus, he points out triumphantly, the words 'fiction' and 'science' turned up lots of times and were about equally frequent, presumably betraying the 'not outwardly expressed' fact that this poll concerned SF. Warming to his theme, he notes that the most frequently used words of all are: 'story' and 'stories'.

The point soon emerges as Bova launches an attack on the artsy-fartsy poseurs who filled in voting forms. These libbers, he complains, kept banging on about 'literary quality', 'passing the test of time', and 'impact on the field', all esoteric virtues of which Bova's



A page in  
the company  
of author and  
PCW pundit  
David Langford

LANGFORD

own SF is certainly innocent. But the computer saw through this holier-than-thou posing!

For, as Bova reports gleefully, the most frequently used words of all were 'good' and 'read'. At heart the voters spurned the high-flown litcrit stuff and wanted a good read....

### Querulous queries

Oi!

Here are some questions to ponder.

- (1) How come the most frequently used words were also 'story' and 'stories'?
- (2) Might the frequent words 'good' and 'read' have been paralleled by frequent use of 'not', 'just' and 'a'?
- (3) Might 'read' have sometimes been a verb?
- (4) Aren't there many more ways of phrasing subtler literary virtues than there are of saying 'a good

read'? For example, mightn't you talk about sheer writing quality or excellence, and wouldn't the analysis be meaningless — or even more meaningless — unless the word-counts for 'quality' and 'excellence' were combined?

- (5) Are you surprised to learn that in pursuance of some murky subargument, Bova proudly points out that 'quality' scored high while 'excellence' came low?
- (6) Would you buy a used statistic from Ben Bova?

Probably his conclusions have several grains of truth; but conclusions reached by such shabby reasoning are automatically devalued. Meanwhile, you're lucky this isn't an SF magazine, otherwise now I'd have to go on and review all the collection's actual stories.... ■



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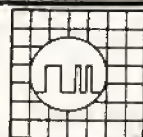
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# LISTINGS

## The Battle of the River Plate and Counting the Cost

### BATTLESHIPS

by M A Owen

Remember when, if you managed to get the back of a school book boxed and the ships positioned without being flicked round the ear with chalk, you could have had a fine old game of battleships?

With the PCW version of this classic diversion your Armada consists of three vessels: one submarine, one boat and a cruiser. In the first section of the game you are asked to place your fleet on an eight by eight grid using the ENTER, PASTE and arrow keys. The screen then clears and two grids appear. The left one shows your positions while the right remains blank and represents the computer's board; it's choices remain hidden from you.

Battle is joined by the use of the cursor keys for navigation and the ENTER key to bomb. You can see where moves have been made, asterisks appear on the grids, while the sound of battle is signalled by the PCW's blood curdling bleep.

The game is simple in use but rather limited in some aspects. For example the ships are only represented by their initial letters, S, B and C. Also the computer will allow you to position one

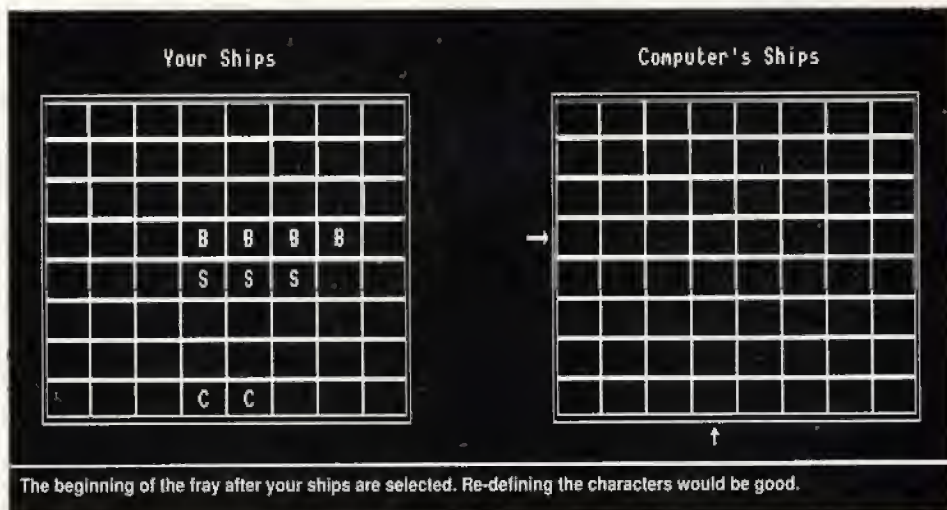
ship upon another. As it stands however, the program is no mean achievement.

A good example of the use of DATA to cut down on tedious toing and froing within a program is given in line 110. You can see this in action when you are asked to place your ships. Instead of three lines asking for the respective names; Submarine, Cruiser and Boat, the single DATA line is used and read three times during the FOR.....NEXT loop which also begins on line 110.

Another usage of DATA is made within the loop which begins on line 450 and ends with line

520. Here the numbers given are the codes returned by the ENTER, PASTE and cursor keys enabling the PCW to see where you are and allowing you to blatt the machine into submission.

If you wish to fiddle with the program, and why not, there is always the possibility of livening up the graphics. The Pac Man upgrade program in the March issue (30) shows how this can be done. You might like to add an exit routine; allow yourself to change your choice of position or slow the computer's response time down, all relatively simple alterations.



5 REM BATTLESHIPS BY M A OWEN

```
10 es$=CHR$(27):cl$=es$+"E"+es$+"H":bell$=CHR$(7):PRINT es$+"f";cl$ 17FF
20 RANDOMIZE (PEEK(64503!)+60*PEEK(64504!)) 104D
30 DEF FNC$(x,y)=es$+"Y"+CHR$(y+32)+CHR$(x+32) 10EC
40 DEF FN1$(x,y)=STRING$(3,CHR$(x))+CHR$(y) 137F
50 DIM g$(2,8,8),s(2,3),h(2,3):FOR e=1 TO 8:FOR f=1 TO 8 159B
60 g$(1,e,f)=" ":g$(2,e,f)=" ":NEXT f,e 0AF5
70 FOR e=1 TO 3:READ s$(e):s(1,e)=5-e:s(2,e)=5-e:NEXT e 1835
```

This section prepares the escape codes and sets up the user defined functions. Note the READ in line 70 refers to DATA in line 120.

```
80 x=28:GOSUB 360:x=1:y=1:p=1 0D34
90 FOR e=1 TO 3:PRINT FNC$(29,24);"Enter the pos'n of your ";s$(e);" " 1FA5
100 PRINT FNC$(29,26)"Using cursors and ENTER or PASTE" 1A5F
110 GOSUB 620:GOSUB 630:IF a$="error" THEN PRINT bell$:GOTO 110 ELSE NEXT e 210D
120 p=2:FOR e=1 TO 3:DATA Battleship,Submarine,Cruiser 1D27
130 f=1+INT(2*RND):x=1+INT((9+(f=2)+s(p,e)*(f=1))*RND) 13CC
140 y=1+INT((9+(f=1)+s(p,e)*(f=2))*RND) 0C69
150 GOSUB 630:IF a$="error" THEN 130 ELSE NEXT e 15E9
```

The placing of your flotilla occurs here. Note the referral to the subroutine in line 360.



# LISTINGS PLUS

```

160 PRINT c1$;Fnc$(16,2)"Your Ships"Fnc$(58,2)"Computer's Ships":x=5      2048
170 GOSUB 360:x=50:GOSUB 360                                              0CE2
180 FOR f=1 TO 8:FOR g=1 TO 8:PRINT Fnc$(3+4*g,21-2*f);g$(1,g,f):NEXT g,f 1EFE
190 cx=1:cy=1                                                            0600
200 gx=22:x=cx:y=cy:p=2:GOSUB 620:cx=x:cy=y:GOSUB 450                  1DAC
210 IF a$="error" THEN PRINT bell$:GOTO 200                             158B
220 WHILE a$="end": a$="You":GOTO 340:WEND                                10C2
230 x=1+INT(8*RND):y=1+INT(8*RND):p=1:a=0                                1229
240 IF h(1,1)=0 AND h(1,2)=0 AND h(1,3)=0 THEN c=1:d=1:x1=x:y1=y:GOTO 270 1CDB
250 g=1:WHILE h(1,g)=0:g=g+1:WEND                                         0D7F
260 x=h(1,g):x1=x:y=h(2,g):y1=y:c=1+INT(2*RND):d=-1+2*INT(2*RND)       1DFE

```

The beginning of the fight. The computer also gets to place its ships.

```

270 GOSUB 450:WHILE a$="end": a$="I":GOTO 340:WEND                      1492
280 IF a$<>"error" THEN 200                                              0BD8
290 x=x-(d-8*(x=1 AND d<0)+8*(x=8 AND d=1))*(c=1)                     111F
300 y=y-(d-8*(y=1 AND d<0)+8*(y=8 AND d=1))*(c=2)                     1116
310 WHILE (x=x1 AND c=1) OR (y=y1 AND c=2)                              10CA
320 a=a+1:c=1-(c=1):ON a GOTO 290,220:WEND                              1017
330 GOTO 270                                                             04C0
340 PRINT bell$;bell$;Fnc$(19-44*(a$="You"),23);a$;" Won"             15BB
350 FOR e=1 TO 5000:NEXT:RUN                                             0D96

```

The height of battle and the victor is declared.

```

360 a$=CHR$(133):FOR f=1 TO 7:a$a$+FN 1$(32,149):NEXT f                1569
370 a$a$+FN 1$(32,133):b$=CHR$(130)                                    0BC1
380 FOR f=1 TO 7:b$b$+FN 1$(154,159):NEXT f:b$b$+FN 1$(154,136)       17B2
390 PRINT FN c$(x,4);CHR$(134);:FOR f=1 TO 7                           1100
400 PRINT FN 1$(138,132);:NEXT f:PRINT FN 1$(138,140)                  15CE
410 FOR f=1 TO 13 STEP 2                                                092E
420 PRINT FN c$(x,4+f);a$,FN c$(x,5+f);b$:NEXT f:PRINT FN c$(x,4+f);a$ 1CEC
430 PRINT FN c$(x,5+f);CHR$(131);:FOR f=1 TO 7                         121D
440 PRINT FN 1$(138,129);:NEXT f:PRINT FN 1$(138,137):RETURN          1AD4

```

The grid(s) are set up here. This section is often referred to by the program. Note the use of CHR\$(134), CHR\$(130) etc. which, when printed, give the grid graphics.

```

450 a$="":WHILE g$(p,x,y)=" ": g$(p,x,y)="*"                            0F58
460 PRINT Fnc$(3-45*(p=2)+4*x,21-2*y);"*":RETURN:WEND                 16D4
470 FOR e=1 TO 3:IF g$(p,x,y)<>LEFT$(s$(e),1) THEN NEXT e:a$="error":RETURN 2106
480 g$(p,x,y)="*":PRINT bell$                                          0C50
490 PRINT Fnc$(2-45*(p=2)+4*x,21-2*y);es$+"p";" ";LEFT$(s$(e),1);" ";es$+"q"; 1A6F
500 s(p,e)=s(p,e)-1                                                    0777
510 FOR f=1 TO 3                                                        0693
520 IF s(p,f)=0 THEN NEXT f: a$="end":RETURN ELSE IF p=2 THEN RETURN 1FBE
530 h(1,e)=(x*(h(1,e)=0)-h(1,e))*(s(p,e)>0)                          0D93
540 h(2,e)=(y*(h(2,e)=0)-h(2,e))*(s(p,e)>0):RETURN                    12DA

```

The asterisks and ships are placed here. If you type TRON before running the program you will see a great deal of line 450!



```

550 i$=INKEY$:IF i$="" THEN 550
560 RESTORE 560:FOR f=1 TO 6:READ i:IF ASC(i$)<>i THEN NEXT f:GOTO 5500A8B
570 IF f<3 THEN RETURN:DATA 13,23,1,6,30,31
580 IF f<5 THEN PRINT FNc$(26+gx+4*x,21);" "
590 x=x+(f=3)-(f=4)-8*(x=1 AND f=3)+8*(x=8 AND f=4)
600 IF f>4 THEN PRINT FNc$(26+gx,21-2*y);" "
610 y=y+(f=5)-(f=6)-8*(f=5 AND y=1)+8*(f=6 AND y=8)
620 PRINT FN c$(26+gx,21-2*y);CHR$(154)+es$+CHR$(12);FN c$(26+gx+4*x,21)
D 550

```

Checking for your key presses with the INKEY\$ in line 550. The sighting arrows are also placed here. CHR\$(12) is the horizontal arrow by the way.

```

630 a$="":IF <x><9-s<p,e>> AND f=1) OR <y><9-s<p,e>> AND f=2) THEN a$="
error":TURN
640 FOR g=0 TO s<p,e>-1:IF g$(p,x-g*(f=1),y-g*(f=2))=" " THEN NEXT g
650 GOTO 660 ELSE a$="error":RETURN
660 FOR g=0 TO s<p,e>-1:g$(p,x-g*(f=1),y-g*(f=2))=LEFT$(s$(e),1)
670 IF p=1 THEN PRINT FNc$(26+4*(x-g*(f=1)),21-2*(y-g*(f=2)));LEFT$(s$(e),
1)
680 NEXT g:RETURN

```

This stops you from placing a ship off the grid or from bombing the same square twice.

## LOAN CALCULATOR

by Ken Robinson

Sorry about this one, what with interest rates and all but the time has come to include a small program with which to work through the effects of the various APR's (average percent rates) which may be quoted at you. It is also an excellent example of sound program construction; the first section does the first task and so on.

In comparison with the Battleships game, this program is simple both in its structure and its results. After you have typed it in, you should save it as something like LOAN.BAS. On typing RUN, you will be asked to give the amount of the loan, the length of the repayment period and the interest rate. This latter factor will probably turn out to be something astronomical like 33.5% APR.

The program will then work out the equation known to mathematicians as 'The-damage-John' (as in what's the...) and will leave you with the following figures:

Monthly repayments over the required period. The total amount repayable. The amount over and above the principle which is the finance company's profit.

When giving the information make sure not to enter any delimiters such as pound, yen or ECU signs, as the heart of the program, to be found on line 200, only responds to numeric information. If you do add any extraneous signs you will receive the Redo from Start ? message which indicates that you have input a string (text) variable

## How to type in Listings.

First get Mallard Basic running. To do this take your CP/M disc – not the Master disc, but a copy – and type BASIC at the A> prompt.

BASIC has been loaded when the A> disappears and is replaced by ok. Now you're ready to type the listings as they appear line by line except for the four figure hex numbers which appear at the end of each line; these are check digits.

When you've finished typing a line, check it for typing errors. When you're certain everything is correct press [RETURN]. If, before this, you find a mistake then cursor back to it and make the correction. Once you're happy, go on to the next line.

If you spot an error after you've moved on, you can type edit followed by the line number. Edit the line using the cursor keys

and make changes using [DEL]. Press [RETURN] and the line will be accepted in the corrected form.

When you've finished typing the program, you should type list. This will print the listing on the screen. If you want a printout type llist. Now, think up a file name such as "a:boatprog, don't worry about using .bas after it. The name should be no longer than eight letters. To save your program type save followed by the filename you chose.

The next thing to do is type run. If the program runs first time you're in luck. If not, don't worry it happens to us all. Basic will probably give you an error message with a line number. This might not be the exact line but it will narrow down the search. If all else fails.....read the manual.

### LOAN REPAYMENTS TABLE

Enter amount of loan, then press RETURN ? 1233

Enter interest rate as annual percentage.Press RETURN ? 16

Enter duration in months (6,12,24..etc). Press RETURN ? 6

Month	Amount Outstanding	Instalment of Principal	Interest	Monthly Repayment
1	1,233.00	198.76	16.44	215.20
2	1,034.24	201.41	13.79	215.20
3	832.84	204.09	11.10	215.20
4	628.75	206.81	8.38	215.20
5	421.93	209.57	5.63	215.20
6	212.36	212.36	2.83	215.20
TOTAL REPAYMENT				= 1291.18
LESS AMOUNT OF LOAN				= 1233
TOTAL INTEREST PAYABLE				= 58.18

The Loan in its full glory scrolls down the screen.



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**9**

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```

10 PRINT CHR$(27)+"E";CHR$(27)+"H"                                0BB1
20 PRINT "LOAN REPAYMENTS TABLE"                                  1213
30 PRINT:PRINT                                                       0955
40 INPUT "Enter amount of loan, then press RETURN    ";L           1D82
50 PRINT                                                       0480
60 INPUT "Enter interest rate as annual percentage, then press RETURN ";X 2986
70 PRINT                                                       0484
80 INPUT "Enter duration in months (12,24,36,48,60), then press RETURN ";A 23F9
90 PRINT:PRINT                                                       0961

```

Nice and simple; escape codes are set up and the relevant information is supplied by the user.

```

100 form$="##                ###,###.##      ###,###.##      ###,###.##      ###,###.##  07AA
110 PRINT "Month"," Amount"," Instalment","Interest"," Monthly"      1F44
120 PRINT "","Outstanding","of Principal","","Repayment"             199B
130 DIM M%(A),C(A),P(A),I(A),T(A)                                       0B0F
140 PRINT                                                                046F
150 M%=1: C=L: GOSUB 200                                                  08FC
160 FOR M%=2 TO A STEP 1                                                 09D4
170 PRINT                                                                0478
180 C=C-P: GOSUB 200                                                      0899
190 NEXT M%                                                              0496
200 I=C*X/1200: R=X/1200: T=L*(R/(1-(1+R)^A)): P=T-I                   1380
210 PRINT USING form$;M%,C,P,I,T                                         1005
220 IF M%=A THEN 240                                                     084A
230 RETURN                                                                0504

```

The form\$ variable is set which allows the printout to be templated and ordered across the screen. The heart of the program is to be found in line 200 with the involved calculations. The up arrow (exponential) is obtained by pressing EXTRA + U.

```

240 PRINT                                                                0471
250 PRINT TAB(30);"TOTAL REPAYMENT"                                     =" ; TAB(58); ROUND(T*A,2)      1A80
260 PRINT TAB(30);"LESS AMOUNT OF LOAN"                               =" ; TAB(58); L                1800
270 PRINT TAB(30);"TOTAL INTEREST PAYABLE"                             =" ; TAB(59); ROUND((T*A)-L,2)  1FFC
280 END                                                                  0375

```

Using the form\$ variable the bad news is printed out to screen and the program is ended. The addition of LPRINT would possibly be of use here.

where a numeric variable was requested.

For the benefit of accountants; we do realize that, due to the fact that the figures are converted from binary and then rounded up in order to give two places of decimals, there will be some tiny discrepancies. This will only really matter if you are working with huge figures over long periods, in which case a spreadsheet would be of far greater use anyway (yes, we really will be doing Supercalc soon — ed).

Obviously if you had several schemes you wanted to compare at your leisure, this automatic cut off would get irritating, as would the fact that you can't pass any of the information out to the printer. Therefore the addition of another exit routine would be most useful as would a perusal of the section dealing with the LPRINT command in the Mallard Basic manual. LPRINT acts in a similar manner to PRINT but communicates with the printer as opposed to the screen.

## Drop Us Some Lines !

We don't make up the listings in 8000 Plus. We need you to send us programs of general interest. What we need most are short programs, 50 lines or less, as this means that we can fit more into an issue. Longer examples will be used if they are brain burstingly brilliant.

So, if you can wend your way around Basic and would like to see your name printed in 8000 Plus as well as our signatures printed on a cheque, send us some lines.

Along with the listing itself (replete with REM's please) we require the listing saved in ASCII form on a disc together with documentation as a simple Ascii file (or in

protext format). The documentation should include instructions for use and details of how the program works. Include a printout of the documentation and a stamped addressed padded bag for the return of your disc. Don't forget the signed statement confirming that the program is all your own work and hasn't been submitted to anyone else.

Send all this to Listings, 8000 Plus, 4 Queen St, Bath, BA1 1EJ and allow up to 40 days for the return of your disc — we assess the listings in a batch once a month.

We're considering using the occasional program written in other well know languages such as C or Pascal. These should not be too long.

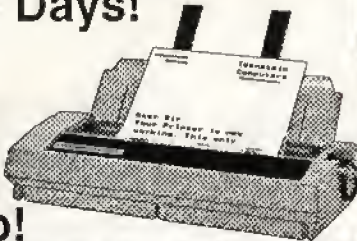


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Faulty PCW9512 Printer.....	£25.00	£115.00
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810771	PCW9512 Tractor Feed Unit.....	£22.95	£22.95
112171	PCW8256/512 Tractor Feed Unit.....	£15.75	£15.75
821171	PCW8256/512 24 Volt DC Cable.....	£5.25	£5.25
621171	PCW8256/512 Printer Platform Knob (Black).....	£5.95	£5.95
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### ● AMSTRAD PCW PARTS MISC:-

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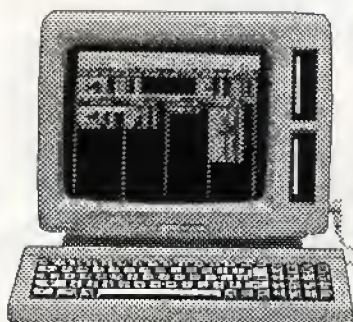
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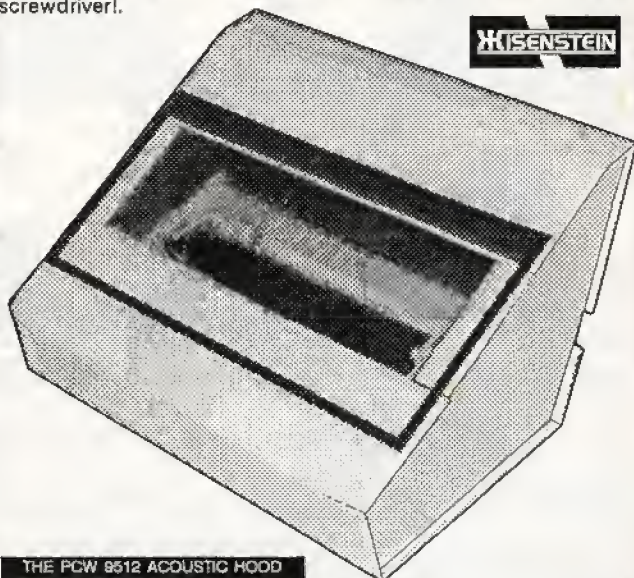
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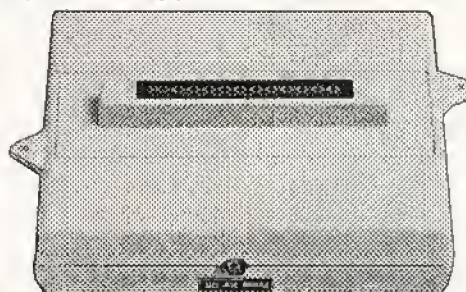


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# TIP OFFS

Revealed - everything you ever wanted to know about everything

Yes, the answers to fish, socks, and those other embarrassing personal problems that inevitably crop up once you begin spending long periods of time in front of the PCW. Not only are there tips to make you tops but solutions to lower your blood pressure.

Send your tips and traps to Tipoffs, 4 Queen St, Bath, BA1 1EJ. The best tips can earn ££££££s and to prove it this month we're sending gratuitous £15 cheques to Neils Ege of Denmark for his Cyrus Chess tips and to F R Peacock for his Locoscript 2 chart.

## What's the answer, Daisy?



My school has recently acquired four PCW 8256 machines to assist with administration. Within the school we also have a number of ADLER SE 1011N electronic typewriters which, whilst lacking the versatility of the Amstrads, produce type of superior quality. Is it possible to interface the Amstrad with the Adler to do this? If this is possible, could you please advise me as to the hardware required or where I may obtain the relevant information.

**Michael A Jones M.Sc**  
The King's High School  
Pontefract

**8000 PLUS** I hate to say it but the answer will almost certainly be in the manual that came with the typewriters. Many modern electronic typewriters can have a serial interface fitted as an optional extra, some will even support a Centronics (parallel) interface. Get in touch with the suppliers regarding the availability of these and go for a Centronics interface if it is available.

You will need an interface for the PCW 8256 as well. Best buy is

the SCA interface (tel 0903 700288). If the Adler typewriters support Centronics interfaces, then a standard 36 way ribbon cable connector (which any computer store can provide off the shelf) will do. If it's to be a serial interface, then you will almost certainly have to have one made up: both interfaces will come with information necessary to do this.

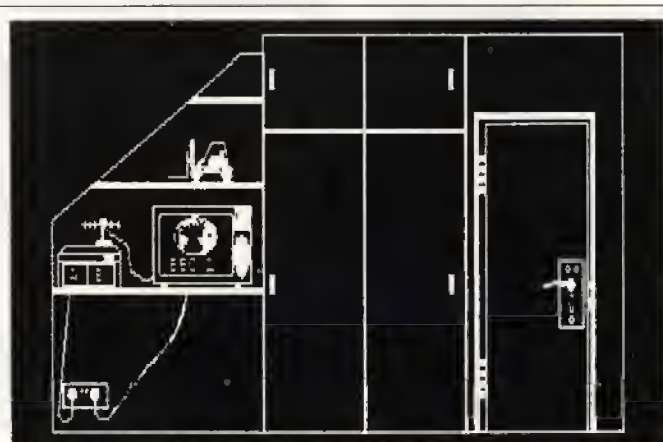
The final problem is printouts. You don't say which software you're using but it's probably LocoScript 1. You will need LocoScript 2 and the printer driver disc (telephone Locomotive on 0306 740606).

## Colour copy



If you urgently need a good printout and only have a worn ribbon to hand, or if you'd like a coloured printout but don't wish to go to the trouble or expense of buying coloured ribbons, then you can use carbon paper for a surprisingly good printout.

You need to sandwich the carbon paper between two sheets of paper with the inked surface face down (so that it will print as you'd expect and not reversed out). Feed it into your printer and print



A duff ribbon needn't make things tough. If you really need a crisp printout carbon paper will do.

as normal. This method can actually produce better results with large areas of solid colour than a ribbon.

**Ian Andrews**  
Eastleigh  
Hants

## A puzzle



I recently bought BRIDGE PLAYER 2000, and it is a great game.

However, I do have a problem. I own a 9512, as well as a WEB, formatted as C & D drives. I have copied the master bridge disc to D drive, and tried to run it, without success. I have tried it on M drive as well, without success (that is if A drive is empty). The following message then appears: CP/M ERROR ON A:DISK I/O. BDOS FUNCTION = 15 = FILE = BRIDGEH. It seems to me that it can only work on A drive, and not on my WEB. Do you have a solution?

A query. I may be going back to South Africa in the near future. Will I be able to subscribe to 8000 Plus from SA?

**Anton Van Tonder**  
Ely  
Cambs

**8000 PLUS** When one program calls another program (usually called an overlay) the person who wrote it had several choices: calling it from a particular drive, calling it from the default drive (the one you're currently logged onto) or calling it from the temporary drive. In fact he can try all of these in turn if he likes. The simplest is to call from one particular drive.

The only solution to this kind of problem is to go poking around in the program code to try and find out where the overlay or data file is being called from. This requires more knowledge of File Control Blocks and CP/M than we have room for and usually a degree of trial and error as well. Yes, you can get 8000 Plus anywhere: write or phone The Old Barn, Somerton, Somerset for more details.

## Copy cuts



I put out a bi-monthly newsletter to about 20 couples, nothing too fancy. Is it the program, or is it the printer, that stops me printing 20 copies? I find it frustrating to stand over the machine to keep telling it to print more, is there some way round this problem? Could you also clarify which LocoScript they give with the 8256? On mine, it says the usual



but with v1.20. I thought this might be a biblical quote but it's not in any Bible I have unless it's that bit that says 'Come unto Me all ye who are heavy laden'.

**Mr D G Fowler**  
Portsmouth  
Hants

**8000 PLUS** There isn't any way to make LocoScript print in batches except to create a long file with the relevant material duplicated the correct number of times – hardly a sensible solution.

Protext will produce multiple printouts without any problem so perhaps the answer is to change word processors.

The 8256 and 8512 machines come with LocoScript 1 (now up to version 1.2 I believe). The 9512 comes with LocoScript 2 and LocoMail. LocoScript 2 is now up to version 2.5 (I think). Even-numbered versions are for the 8000 series and odd-number versions for the 9512 machines.

## Checkmate



Cyrus chess is an extremely good implementation of the game which suffers from two major irritations.

The first of these is that you can't copy the game onto another disc using DISCKIT. If you try you get an error message. Copying it with PIP B:=A:.\* results in the file CYRUS.COM being copied and the message:

**Pirate copy !**

**Peter Roback bites yer ankles !**

In fact there is a system file also on the disc called P3Q27RTX.COM which must also be copied, so use PIP B:=A:.\*.\*[r] to copy that as well. If you're copying it to M use PIP M:=A:.\*.\*[r] instead. Now remove your original disc and put it somewhere safe before erasing the file CYRUS.COM on the copy and renaming the second file. RENAME CYRUS.COM = P3Q27RTX.COM

You can now play chess from your backup disc without any rude messages from Peter Roback.

The second problem is the constant barrage of bleeps – which prove far more distracting than any flavour yoghurt known to man. To get rid of these you need the indomitable SID.

Load SID and your newly renamed backed up file (the one which was P3Q27RTX.COM). At the hash prompt type S3504 and you should get the number 07 come up. Type in a 0 (zero) and press [RETURN] then save the altered file from the hash prompt with Wa:cyrus.com and you can now play chess in blessed silence.  
**Neils Ege**  
Denmark

## Hard problems



I have recently purchased a PCW 9512 and NEC P2200 printer which I have used to connect the parallel port of the 9512 to the Centronics port of the printer. Neither LocoScript nor CPM will communicate with the printer in spite of using the DEVICE program CPM.

I also have a Timatic WEB connected via the expansion port of the 9512 and am able to print using the RS232 interface and a double Centronics cable.

I would be obliged if you could solve the problem; I suspect that other readers may have come across the same frustration.

**J L Booth**  
Heswall  
Wirral

**8000 PLUS** Timatic inform me that there is no conflict between their hard disc and the centronics printer port of the 9512, so you are certainly doing something wrong. However, this isn't any problem to you since you have an RS232 interface anyway.

For those who don't I know the way to redirect printer output to

### Off Centre

Centring double width headings in Protext can require either doing some sums or a trial and error approach. This little tip can save a great deal of irritation.

Type your heading in twice and centre it as usual with the >CE embedded command. Next, delete the second copy and edit in the printer control codes for double width. The illustration shows both stages and the printed results.

**Michael Gorman**  
Guildford

Tipoffs  
8000 Plus,  
4 Queen Street,  
Bath BA1 1EJ.

Dear sirs,

TIP-OFFstip-offs  
TIP-OFFS

How to centre a double-width heading when using Protext:  
Type the heading twice, centre the result, delete the second copy, and then edit in the printer control 'I' fore and aft.

No more frustrating arithmetic, mental or otherwise!

Michael Gorman

PROTEXT Document <<No File>> IN Justify Off Word-Wrap ALT-N for Help  
Line 1 Col 13 No markys set Insert

And now, before your very eyes - double width centring of text

TIP-OFFstip-offs  
TIP-OFFS

Obviously, the print codes take up no room on the final printout so don't take any spaces out before the words you want to centre.

Calculating the positions for double width text can be annoying. Now there's no need.

the built in Centronics interface under CP/M on the 9512 use DEVICE LST:=PAR. Under LocoScript it's a bit more involved. You will need a suitable printer driver (obtainable either from Locomotive or your dealer) which will have to be copied onto drive M and your start-of-day disc. Then go to the [f6] menu and move straight down to EXIT. You will be offered the opportunity to save the new SETTINGS.STD to disc: take it.

Finally, one last observation; the PCW 9512 will not recognise a printer connected to it's built in Centronics port unless the original built in printer is also connected. This doesn't apply to printers connected via an RS232/Centronics interface.

## Copysys, copysas



I am writing to enquire if it is at all possible for you to help me with a small problem I have.

The thing is that I am trying to copy systems files from disc into the memory. The Amstrad CP/M Plus book by David Powys-Lybbe and Andrew R M Clarke informs me that you may use 'copysys' on the master CP/M disc which is not there.

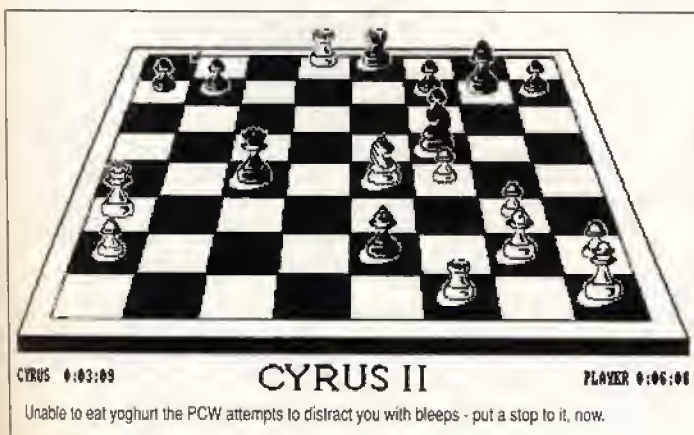
So can you please tell me how to copy sys file from disc to memory and back to disc.

**Mr C W Jones**  
Rhondra  
Mid Glamorgan

**8000 PLUS** A modicum of confusion here, sad to say, but it's not really the fault of Mr Clarke, et al. CP/M 2.2 used the first track to keep the operating system on and COPYSYS was the program that copied it onto this first track (where you couldn't get at it). Early versions of CP/M 3.xx did the same. The Amstrad PCW version doesn't use the system track for anything much except disc format information (well known from the famous track 1 sector 1 error message) and so you don't get COPYSYS with the PCW.

System files are a different thing altogether. These simply have one of the filetype attribute bits set so that CP/M sees them differently (and DIR doesn't see them at all). If you do a DIR and get the message System file(s) present then you have some of these invisible files.

PIP can be made to copy system files by adding the parameter [R] to the end of a command (read system file), for





# TIPOFFS

example:

PIP M:=A:.\*.\*[r].

This will copy all the files on A to M including system files.

Alternatively, use the SET utility to make system files into ordinary Read/Write files using:

SET A:.\*.\*[rw].

This sets all the files on the drive to Read/Write.

## Cracked suggestion



Recently I had the misfortune of cracking the screen of my monitor during a house removal. I would like to know if it is possible for me to replace the tube myself as I have had very high estimates from various repair companies who also seem to charge highly for the parts.

I accept that it would be quite a difficult task to replace the tube but I basically would like to know if I could tackle the job without any specialised equipment or manuals.  
**Mr M Smith**  
West Kensington  
London

**8000 PLUS** The skills involved in repairing a PCW are very similar to those required for television repairs. While replacing the tube itself is not beyond the skills of a moderately competent DIY enthusiast (the most difficult part is remembering exactly how you took it apart when you come to put it together again) getting it to work properly afterward might be.

As with the picture tube in a television, there is some setting up to be done with a new tube which might prove a problem (you would need the technical guide to the PCW available from CPC (tel 0772 555034) the order number is AMSM8256/8512.

Remember that CRT tubes operate at thousands of volts — exposure to these can result in not just the machine being returned to its manufacturer but you as well. All things considered, it's a job best left to a professional unless you know what you're doing.

M>quit

```
M>***** IS THERE ANYTHING YOU SHOULD HAVE SAVED ON DRIVE M?
*****?
M>***** REMOVE ALL DISCS BEFORE TURNING OFF THE PCW
*****?
M>|
```

We have ways of making you talk. Of course, making your PCW shut up again is a little more difficult. Any messages you like an go into the file that produces these reminders; edit as you go and never forget again.

## Clearer Cards

It isn't possible to have text on a LocoFile card unless it is associated with a data field (item), but, the item can be as small as a single character location and if nothing is stored in it then the overhead involved is very small.

This fact can be used to provide titles for LocoFile cards. Simply create an item called something like Staff Records at the appropriate place on the card. A title can be up to sixteen characters long including spaces and you can have as many of them as you like on a card.

**John Bevan**  
Tunbridge

Labelling items you don't use can make your filecards far more informative as well as improving the appearance of printouts. What's more, you can have them in any colour you like.

## Lost the address



Recently I switched off with the disc in the drives (we all have lapses). The result was a B drive disc message next time I booted up saying 'missing address mark'. I had made a recent backup with the copy disc facility from CPM.

What is it about the PCW that makes it misbehave like this? Neither of my two other disc drive computers do it, so why the Amstrad?

**Dr G A H Heaney**  
Sutton Coldfield  
West Midlands

**8000 PLUS** This is a problem which doesn't affect everybody and shouldn't affect anybody. My own PCW is used for days at a time with a boot disc in A and a working disc in B and both discs simply left in continuously — a bad habit but mine own.

A better habit is to adopt a proper Quit procedure as used on most PCs. You need to use the SETDEF utility to make CP/M look for SUB files before COM files. SETDEF M:.\* [ORDER = (SUB,COM) TEMPORARY = M:] This is already set up in the original PROFILE.ENG file that

came with the PCW CP/M disc. If you aren't using it, simply change the ENG filetype to SUB and copy it along with SETDEF and SUBMIT to your CP/M Start of Day disc.

You now need a file called QUIT.SUB which should contain the following line:

```
***** IS THERE ANYTHING
YOU SHOULD HAVE SAVED ON
DRIVE M?
***** REMOVE ALL DISCS
BEFORE TURNING OFF THE
PCW
```

Of course you still have to remember to type QUIT when you finish a session but that's only one thing. There can be as many reminders as you like in the list but it's a good idea to precede them with something that can't be a filename, otherwise it will be run. I have a file like this that I add things to while I'm working — as soon as I quit up come all the reminders; drink coffee, beat the children, eat, and so on.

## Paper chase



There are few things more irritating than having a program begin to print out while there is no paper in the printer. However, it is possible for Basic to check that there's something there to print on. All that's required is a user defined function:

```
10 DEF FNpaper=(INP(253)
AND 4) = 0
20 IF FNpaper THEN PRINT
"Sad, no paper"
30 IF NOT FNpaper THEN
PRINT "Hurray, paper"
40 PRINT FNpaper
```

If you run this routine on an 8256/8512 it will print a message telling you whether or

not there is paper in the printer, followed by either a 0 or -1. Though the printer port is usually considered a write only port there has to be input as well. There are in fact at least five possible input signals from the printer which can be read. One of these is the Paper Out Detect which is read from Port 253, bit 2. This bit is set if there is paper and unset if there isn't. The program checks for the bit and returns True or False (0 or -1) depending on what it finds.

**Lawrence Simons**  
London

## Compliant



The Mini Office suite of programs is designed to be run from the A drive, and a lot of fuss is involved in persuading them to do anything else. However, if your main interest is in the Comms module then you can conveniently run it from M, no problem.

The problems begin when you decide to quit the module, since instead of going away quietly it looks around for the menu program (OFFICE.COM) and won't go away until it finds it. If it does find it then COMMS.COM is erased from M in the process and you also have to wait around for OFFICE to load before you can quit to CP/M.

Solving this problem is clearly a job for SID and his friends. Copy SID, SET, and PIP to M (using PIP). The first step is to run SET over the COMMS.COM program. Type:  
SET A:COMMS.COM[rw].  
Now copy it to M using PIP. Once there, run SID and at the hash prompt type RM:COMMS.COM. You now have COMMS in memory for SID to work on. Type D39B0



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```

Msid.comms.com
CP/M 3 SID - Version 3.0
NEXT MSIZE PC END
8F80 8F80 0100 DAFF
#A39B0
39B0: 08 18 D4 0E 19 CD 05 00 3C FE 0D C8 32 C8 39 C6 .....<...2.3.
39C0: 40 32 EC 39 32 01 3B C9 01 4F 48 46 49 43 45 20 02 92...OFFICE
39D0: 20 43 4F 4D 00 00 00 00 00 00 00 00 00 00 00 00 00 00 COM.....A:0F
39E0: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 FICE...S!...I..I
39F0: 46 49 43 45 00 CD 19 53 21 CC 3A 01 54 00 CD 5D 05 H.ZK...19..9..
3A00: 4B CD 7A 48 FE 1B CA 7C 39 11 C8 39 0E 11 CD 05 M.ZK...19..9..
3A10: 00 FE FF 28 E0 CD 73 DE 3E 65 CD 40 3A 3E 45 CD ...s.e.o.e.
3A20: 40 3A 3E 48 CD 40 3A 0E 2D 1E 00 CD 05 00 21 EC 0:H.e...:
3A30: 39 11 80 00 01 09 00 ED B0 1E 00 0E 2F C3 05 00 9...../
3A40: FS 0F 02 1F 1B CD 05 00 0E 02 F1 5F C3 05 00 CD
3A50: 7A 48 FE 1B CA 7C 39 11 C8 39 0E 11 CD 05 M.ZK...19..9..
3A60: FS CD 57 4C 1B E9 15 00 1F 00 1A 00 08 15 01 18 ..NL.....
#S39sec
39EC 41 "M
39ED 3A .
#S39c9
39C9 4F "COMMS COM
39D4 00 .
#Wcomms.com
311Dh record(s) written.
#TC

```

The process of altering the Mini Office comms module to run as a stand alone application is quite straightforward and well worth the effort if you want to use it in conjunction with other programs.

and you should see the words OFFICE.COM at the side of the screen amongst all the other stuff.

You need to change the A in front of OFFICE to an M using the Substitute command:

#S39FA  
This will show the address and the byte at that address. Simply type in "M:" and press [RETURN]. Now do the same thing for the address 39D6 and type "MCOMMS COM when SID shows you the byte at that location (note the three spaces between S and C - very important).

Once you've made these alterations save the altered program with: WM:COMMS.COM and leave SID. Your new version of COMMS should be saved to disc and then tested. The only problem with this new version of COMMS is that it leaves some of the keys in an altered state. Of these the important ones are the cursor keys.

To make effortless use of your new version of COMMS without getting irritated you need a simple datafile for SETKEYS to work on so that you regain control of your cursor keys. This should have the following entries.

```

14 N "A#91" cursor up
15 N "A#93" cursor left
06 N "A#94" cursor right
79 N "A#96" cursor down

```

```

E #91 "A " cursor up
E #93 "A" cursor left
E #94 "A" cursor right
E #96 "A#30" cursor down

```

Once you've created this file (with RPED, a text editor or by using a word processor and saving it as an Ascii file) call it OLD.KEY or something equally memorable and run it by typing: SETKEYS OLD.KEY.

This gets you your cursor keys back. It's now possible to run COMMS and the SETKEYS file

automatically from a suitable SUB file. Create the sub file COMM.SUB as follows:

COMMS  
SETKEYS OLD.KEY  
With SETKEYS, OLD.KEY, SUBMIT and COMMS on M, type SUBMIT COMM and the whole process of running your communications package resetting your keys will be done automatically. Happy home comming!

Reg Osborne  
Pitton  
Salisbury

**8000 PLUS** It's worth noting that because Mini Office has been through a series of revisions, the file names you're looking for are at different locations - as we did (see the screen dump).

## Musically minded



Creating your own music manuscript paper is a fairly obvious use to which LocoScript can be put. However, there are one or two drawbacks. If unheaded paper is all that's required then the process is simple enough.

Create a document and edit it as follows: (+LS1/2), New layout, increase the right hand margin to 9. Press [RETURN], five times for five empty lines and then insert the underline code (+UL). Now space across to the extent of the right hand margin and press [RETURN].

Repeat the spacing across until you have five lines on the screen and then insert (-UL). Copy the five lines into a block and add five more empty lines. Now paste the block in. Repeat the whole procedure until you have ten staves.

## Poking around

Interesting places to byte into abound in Mallard Basic but the places are different in version 1.29 (the 8000 series) and version 1.39 (found on the 9512). The following is a roundup of the printing pokes and an interesting directory poke on the two machines.

8512 poke	9512 poke	Action
18527,90	18591,0	PRINT to printer
18527,199	18591,10	PRINT to screen
8792,205	29161,205	Echo to printer
8792,195	29161,195	Stop echo to printer

Mallard normally only accesses group 0 of the directory, so persuading it to work in a different group is one way of concealing files. On the 8000 machines, POKE 8356,62 and POKE 8357,n (where n is the group number) will cause Basic to do all saving, loading and directory listings from the relevant group. To change it back, POKE 8356,25 and POKE 8357,126 (or poke the numbers 62 and 0 to the same locations). On the 9512 the equivalent is POKE 8454,62 and 8455,n.

Disc errors tend to result in the loss of the program Basic was working on and a return to the CP/M prompt.

```

10 H=HIMEM:MEMORY H-8:DATA 14,45,30,254,195,5,0
20 FOR N=H-7 TO H:READ A:POKE N,A:NEXT
30 CALL V:MEMORY H

```

The preceding lines use a Bdos call to alter the way errors are reported in CP/M. You get a mess of error messages but are returned to Basic with your program intact.

Geoffry Childs  
Winchcombe  
Glos

This process leaves you with a deep footer for notes, or the words to the music. This should be printed out in draft. You may need a few trial runs to get the exact position in the printer to give an even result.

If you want a title on the sheets, things are a bit more complicated. While the staves should be printed out in draft, the title should be in NLQ.

Create a new document and go into Document Setup and increase the right hand margin to 9 using Change Layout. Now insert the title details into the document header as required before returning to edit mode. You now have to

insert one space because otherwise there isn't any document to put the header into.

This document can be saved for future use or printed out immediately in NLQ. You now have a sheet of paper with only a header on. Onto this can be printed the music staves in draft quality. The best arrangement is to print out the staves so that you can score your music and then print the headers onto perfect finished sheets. These are then ready for photocopying or whatever.

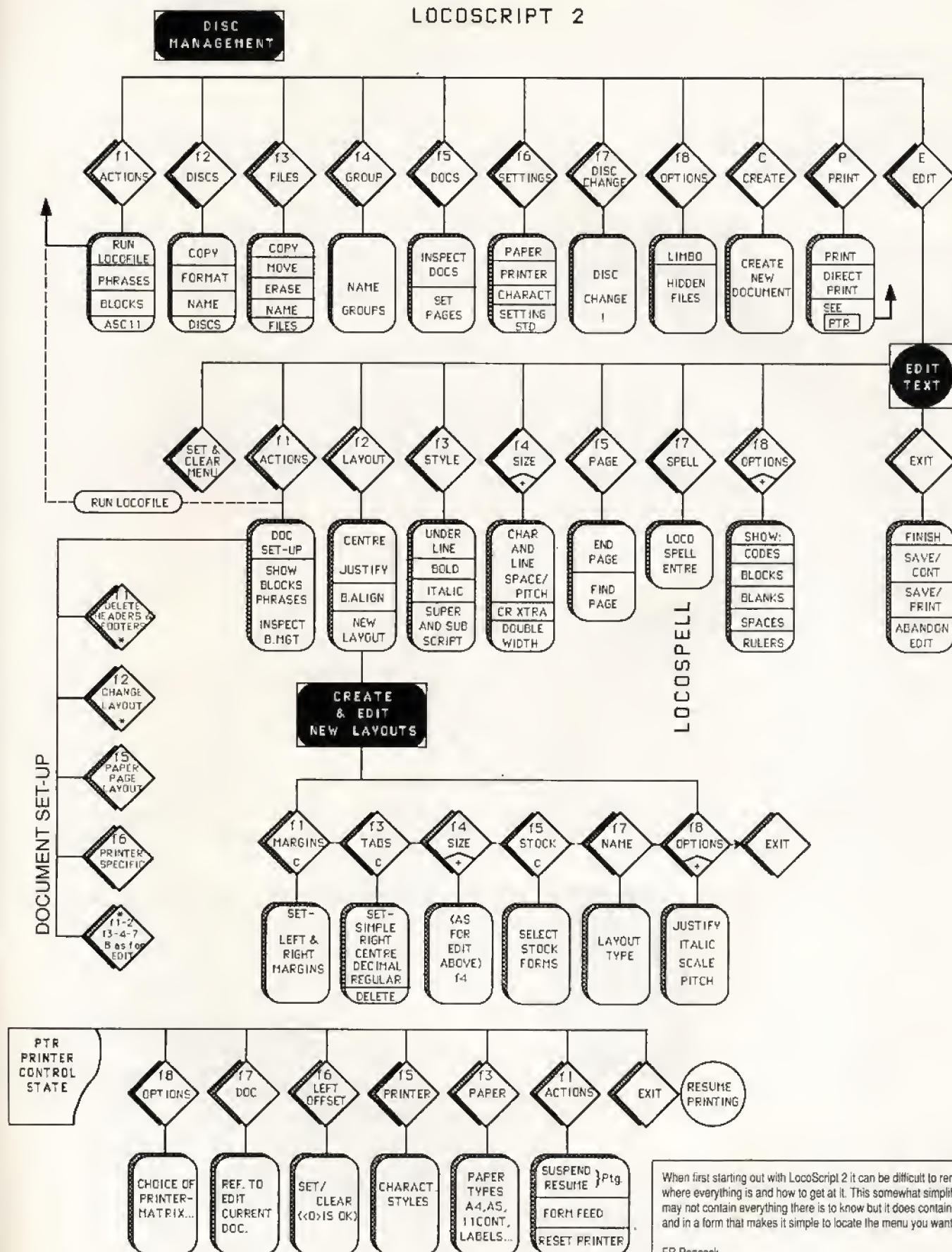
John Walker  
Birmingham

Document Setup screen showing settings for printer, paper, and margins. Below the settings is a section for 'PERSONALISED MUSIC MANUSCRIPT PAPER' with fields for 'Words by John Walker', 'end of header 1', 'end of footer 1', 'end of header 2', and 'end of footer 2'. The screen also shows 'Fred McLawrence' and 'Bill Blosse' at the top.



# Charting Your Way to Success

## LOCOSCRIPT 2



When first starting out with LocoScript 2 it can be difficult to remember where everything is and how to get at it. This somewhat simplified chart may not contain everything there is to know but it does contain a lot of it and in a form that makes it simple to locate the menu you want.

FR Peacock  
Thorpe Bay  
Esse



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Contact: Mike M  
Ref: BUF

Invoice	Tax point	Amount	Date paid	Comments
12044	20 Aug 87	£235.00	02 Oct 87	
12395	20 Aug 87	£38.00	02 Oct 87	
12450	01 Oct 87	£345.00		
12453	21 Oct 87	£133.00		
12531	03 Nov 87	£1,044.50		
12598	10 Nov 87	£355.65		
12703	11 Nov 87	£200.00		
12782	11 Nov 87	£39.20		
12839	04 Dec 87	£883.55	04 Dec 87	Cash with order
<b>Totals:</b>		<b>£3,253.90</b>		

Date of invoice

Drive: B File: INVOICE Records: 00017 Selected: 00003 Key: Format: 1

**03: Display Options**

Steer using: ☒ F10  
Alter data: ☐ F11  
Erase data: ☐ F12  
Assign to set: ☐ F13  
First page: ☐ F14  
Next page: ☐ F15  
Find key: ☐ F16  
Go to record number: ☐ F17  
Print: ☐ F18  
Print single record: ☐ F19  
Erase record: ☐ F20  
Erase new record: ☐ F21  
Show re-sequenced: ☐ F22  
Rotate format: ☐ F23  
Go to search: ☐ F24  
Exit to main menu: ☐ F25

Keyed files are maintained automatically in key sequence, with never any need to sort. You can have unkeyed files too, where records can be inserted at any point in the file.

Any file can make RELATIONAL references to up to EIGHT read-only keyed files, the linkage being effected purely by the use of matching file and data names.

You can import/merge ASCII files (e.g. from MASTERFILE III), or export any data (e.g. to a word-processor), and merge files. For keyed files this is a true merge, not just an append operation. By virtue of export and re-import you can make a copy of a file in another key sequence. New data fields can be added at any time.

File searches combine flexibility with speed. (MASTERFILE 8000 usually waits for you, not the other way around.) You can even assign subsets of a file into one or more of seven pigeon-holes for subsequent reference or further manipulation.

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C5004	Epson	FX105	100cps 40x10 16col	£575
C5005	Epson	FX105	100cps 40x10 18col	£655
C5006	Epson	FX105	100cps 40x10 20col	£735
C5007	Epson	FX105	100cps 40x10 22col	£815
C5008	Epson	FX105	100cps 40x10 24col	£895
C5009	Epson	FX105	100cps 40x10 26col	£975
C5010	Epson	FX105	100cps 40x10 28col	£1055
C5011	Epson	FX105	100cps 40x10 30col	£1135
C5012	Epson	FX105	100cps 40x10 32col	£1215
C5013	Epson	FX105	100cps 40x10 34col	£1295
C5014	Epson	FX105	100cps 40x10 36col	£1375
C5015	Epson	FX105	100cps 40x10 38col	£1455
C5016	Epson	FX105	100cps 40x10 40col	£1535
C5017	Epson	FX105	100cps 40x10 42col	£1615
C5018	Epson	FX105	100cps 40x10 44col	£1695
C5019	Epson	FX105	100cps 40x10 46col	£1775
C5020	Epson	FX105	100cps 40x10 48col	£1855
C5021	Epson	FX105	100cps 40x10 50col	£1935
C5022	Epson	FX105	100cps 40x10 52col	£2015
C5023	Epson	FX105	100cps 40x10 54col	£2095
C5024	Epson	FX105	100cps 40x10 56col	£2175
C5025	Epson	FX105	100cps 40x10 58col	£2255
C5026	Epson	FX105	100cps 40x10 60col	£2335
C5027	Epson	FX105	100cps 40x10 62col	£2415
C5028	Epson	FX105	100cps 40x10 64col	£2495
C5029	Epson	FX105	100cps 40x10 66col	£2575
C5030	Epson	FX105	100cps 40x10 68col	£2655
C5031	Epson	FX105	100cps 40x10 70col	£2735
C5032	Epson	FX105	100cps 40x10 72col	£2815
C5033	Epson	FX105	100cps 40x10 74col	£2895
C5034	Epson	FX105	100cps 40x10 76col	£2975
C5035	Epson	FX105	100cps 40x10 78col	£3055
C5036	Epson	FX105	100cps 40x10 80col	£3135
C5037	Epson	FX105	100cps 40x10 82col	£3215
C5038	Epson	FX105	100cps 40x10 84col	£3295
C5039	Epson	FX105	100cps 40x10 86col	£3375
C5040	Epson	FX105	100cps 40x10 88col	£3455
C5041	Epson	FX105	100cps 40x10 90col	£3535
C5042	Epson	FX105	100cps 40x10 92col	£3615
C5043	Epson	FX105	100cps 40x10 94col	£3695
C5044	Epson	FX105	100cps 40x10 96col	£3775
C5045	Epson	FX105	100cps 40x10 98col	£3855
C5046	Epson	FX105	100cps 40x10 100col	£3935
C5047	Epson	FX105	100cps 40x10 102col	£4015
C5048	Epson	FX105	100cps 40x10 104col	£4095
C5049	Epson	FX105	100cps 40x10 106col	£4175
C5050	Epson	FX105	100cps 40x10 108col	£4255
C5051	Epson	FX105	100cps 40x10 110col	£4335
C5052	Epson	FX105	100cps 40x10 112col	£4415
C5053	Epson	FX105	100cps 40x10 114col	£4495
C5054	Epson	FX105	100cps 40x10 116col	£4575
C5055	Epson	FX105	100cps 40x10 118col	£4655
C5056	Epson	FX105	100cps 40x10 120col	£4735
C5057	Epson	FX105	100cps 40x10 122col	£4815
C5058	Epson	FX105	100cps 40x10 124col	£4895
C5059	Epson	FX105	100cps 40x10 126col	£4975
C5060	Epson	FX105	100cps 40x10 128col	£5055
C5061	Epson	FX105	100cps 40x10 130col	£5135
C5062	Epson	FX105	100cps 40x10 132col	£5215
C5063	Epson	FX105	100cps 40x10 134col	£5295
C5064	Epson	FX105	100cps 40x10 136col	£5375
C5065	Epson	FX105	100cps 40x10 138col	£5455
C5066	Epson	FX105	100cps 40x10 140col	£5535
C5067	Epson	FX105	100cps 40x10 142col	£5615
C5068	Epson	FX105	100cps 40x10 144col	£5695
C5069	Epson	FX105	100cps 40x10 146col	£5775
C5070	Epson	FX105	100cps 40x10 148col	£5855
C5071	Epson	FX105	100cps 40x10 150col	£5935
C5072	Epson	FX105	100cps 40x10 152col	£6015
C5073	Epson	FX105	100cps 40x10 154col	£6095
C5074	Epson	FX105	100cps 40x10 156col	£6175
C5075	Epson	FX105	100cps 40x10 158col	£6255
C5076	Epson	FX105	100cps 40x10 160col	£6335
C5077	Epson	FX105	100cps 40x10 162col	£6415
C5078	Epson	FX105	100cps 40x10 164col	£6495
C5079	Epson	FX105	100cps 40x10 166col	£6575
C5080	Epson	FX105	100cps 40x10 168col	£6655
C5081	Epson	FX105	100cps 40x10 170col	£6735
C5082	Epson	FX105	100cps 40x10 172col	£6815
C5083	Epson	FX105	100cps 40x10 174col	£6895
C5084	Epson	FX105	100cps 40x10 176col	£6975
C5085	Epson	FX105	100cps 40x10 178col	£7055
C5086	Epson	FX105	100cps 40x10 180col	£7135
C5087	Epson	FX105	100cps 40x10 182col	£7215
C5088	Epson	FX105	100cps 40x10 184col	£7295
C5089	Epson	FX105	100cps 40x10 186col	£7375
C5090	Epson	FX105	100cps 40x10 188col	£7455
C5091	Epson	FX105	100cps 40x10 190col	£7535
C5092	Epson	FX105	100cps 40x10 192col	£7615
C5093	Epson	FX105	100cps 40x10 194col	£7695
C5094	Epson	FX105	100cps 40x10 196col	£7775
C5095	Epson	FX105	100cps 40x10 198col	£7855
C5096	Epson	FX105	100cps 40x10 200col	£7935
C5097	Epson	FX105	100cps 40x10 202col	£8015
C5098	Epson	FX105	100cps 40x10 204col	£8095
C5099	Epson	FX105	100cps 40x10 206col	£8175
C5100	Epson	FX105	100cps 40x10 208col	£8255
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C5102	Epson	FX105	100cps 40x10 212col	£8415
C5103	Epson	FX105	100cps 40x10 214col	£8495
C5104	Epson	FX105	100cps 40x10 216col	£8575
C5105	Epson	FX105	100cps 40x10 218col	£8655
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C5108	Epson	FX105	100cps 40x10 224col	£8895
C5109	Epson	FX105	100cps 40x10 226col	£8975
C5110	Epson	FX105	100cps 40x10 228col	£9055
C5111	Epson	FX105	100cps 40x10 230col	£9135
C5112	Epson	FX105	100cps 40x10 232col	£9215
C5113	Epson	FX105	100cps 40x10 234col	£9295
C5114	Epson	FX105	100cps 40x10 236col	£9375
C5115	Epson	FX105	100cps 40x10 238col	£9455
C5116	Epson	FX105	100cps 40x10 240col	£9535
C5117	Epson	FX105	100cps 40x10 242col	£9615
C5118	Epson	FX105	100cps 40x10 244col	£9695
C5119	Epson	FX105	100cps 40x10 246col	£9775
C5120	Epson	FX105	100cps 40x10 248col	£9855
C5121	Epson	FX105	100cps 40x10 250col	£9935
C5122	Epson	FX105	100cps 40x10 252col	£10015
C5123	Epson	FX105	100cps 40x10 254col	£10095
C5124	Epson	FX105	100cps 40x10 256col	£10175
C5125	Epson	FX105	100cps 40x10 258col	£10255
C5126	Epson	FX105	100cps 40x10 260col	£10335
C5127	Epson	FX105	100cps 40x10 262col	£10415
C5128	Epson	FX105	100cps 40x10 264col	£10495
C5129	Epson	FX105	100cps 40x10 266col	£10575
C5130	Epson	FX105	100cps 40x10 268col	£10655
C5131	Epson	FX105	100cps 40x10 270col	£10735
C5132	Epson	FX105	100cps 40x10 272col	£10815
C5133	Epson	FX105	100cps 40x10 274col	£10895
C5134	Epson	FX105	100cps 40x10 276col	£10975
C5135	Epson	FX105	100cps 40x10 278col	£11055
C5136	Epson	FX105	100cps 40x10 280col	£11135
C5137	Epson	FX105	100cps 40x10 282col	£11215
C5138	Epson	FX105	100cps 40x10 284col	£11295
C5139	Epson	FX105	100cps 40x10 286col	£11375
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C5142	Epson	FX105	100cps 40x10 292col	£11615
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C5147	Epson	FX105	100cps 40x10 302col	£12015
C5148	Epson	FX105	100cps 40x10 304col	£12095
C5149	Epson	FX105	100cps 40x10 306col	£12175
C5150	Epson	FX105	100cps 40x10 308col	£12255
C5151	Epson	FX105	100cps 40x10 310col	£12335
C5152	Epson	FX105	100cps 40x10 312col	£12415
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C5154	Epson	FX105	100cps 40x10 316col	£12575
C5155	Epson	FX105	100cps 40x10 318col	£12655
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C5157	Epson	FX105	100cps 40x10 322col	£12815
C5158	Epson	FX105	100cps 40x10 324col	£12895
C5159	Epson	FX105	100cps 40x10 326col	£12975
C5160	Epson	FX105	100cps 40x10 328col	£13055
C5161	Epson	FX105	100cps 40x10 330col	£13135
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C5163	Epson	FX105	100cps 40x10 334col	£13295
C5164	Epson	FX105	100cps 40x10 336col	£13375
C5165	Epson	FX105	100cps 40x10 338col	£13455
C5166	Epson	FX105	100cps 40x10 340col	£13535
C5167	Epson	FX105	100cps 40x10 342col	£13615
C5168	Epson	FX105	100cps 40x10 344col	£13695
C5169	Epson	FX105	100cps 40x10 346col	£13775
C5170	Epson	FX105	100cps 40x10 348col	£13855
C5171	Epson	FX105	100cps 40x10 350col	£13935
C5172	Epson	FX105	100cps 40x10 352col	£14015
C5173	Epson	FX105	100cps 40x10 354col	£14095
C5174	Epson	FX105	100cps 40x10 356col	£14175
C5175	Epson	FX105	100cps 40x10 358col	£14255
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C5182	Epson	FX105	100cps 40x10 372col	£14815
C5183	Epson	FX105	100cps 40x10 374col	£14895
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C5186	Epson	FX105	100cps 40x10 380col	£15135
C5187	Epson	FX105	100cps 40x10 382col	£15215
C5188	Epson	FX105	100cps 40x10 384col	£15295
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C5192	Epson	FX105	100cps 40x10 392col	£15615
C5193	Epson	FX105	100cps 40x10 394col	£15695
C5194	Epson	FX105	100cps 40x10 396col	£15775
C5195	Epson	FX105	100cps 40x10 398col	£15855
C5196	Epson	FX105	100cps 40x10 400col	£15935
C5197	Epson	FX105	100cps 40x10 402col	£16015
C5198	Epson	FX105	100cps	





These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Word Processors (including Desk Top Publishers), Accounts/Payroll packages and Utilities. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you.

All software will run on both the 9512 and the 8000 series machines, though the former's daisywheel

printer cannot print graphical output.

The selection isn't comprehensive, but the software listed here represents what we think is the best of that currently available.

As well as a brief summary of what they do, the main Plus and Minus points for each program are listed – Pluses have a ▲ by them, Minuses a ▼. Those we think are particularly noteworthy have a corner flash. Have fun window shopping!

## • WORD PROCESSORS •

The PCW already comes bundled with its own word processor, so you might not think of buying another one as a priority. In fact, whatever you may have read in some magazines, LocoScript is a pretty good wordprocessor and you won't find many editing and layout functions it doesn't have. Its principal disadvantage was its slowness, but the release of LocoScript 2 has lessened that.

There are advantages to be had in changing. LocoScript cannot run from CP/M, and this may cause you trouble.

Many other word processors have a built-in 'mailmerger' program. This is a way of doing bulk mailshots; you store your address list in a data file, and write a letter with labelled gaps where you want the names and addresses to go. Then, when you print, the letter comes out once for each address, with the information in its correct place. Also, you often get a spelling checker thrown in free – look for one which allows its dictionary to be modified so you can include non-American spellings.

One thing's for sure, whatever word processor you buy it will be totally different to operate from LocoScript. The PCW keyboard is custom built to run it, and if you change you may have to get used to some arcane choices of keys to do even simple operations. Also, you won't be able (very easily) to use all the printer styles that you can in LocoScript, though there will be enough to get by with.

### PROTEXT/ POCKET PROTEXT

£59.95/£29.95 • Arnor • 0733 68909

*The best CP/M wordprocessor. Very fast at moving around large files, and packed with features. Works with key combinations rather than menus, but uses LocoScript keys too. Comes complete with a good spelling checker, a lightning fast word counter and a very powerful mailmerger. 'Pocket Protext' is a stripped down version – essentially the same word processing features, but no spell checker or mailmerger, and lacking one or two incidental facilities like two column printing. Specify which machine you have when buying.*

#### PLUSES • MINUSES

- ▲ Complete with spelling checker/word counter
- ▲ Packed with features, eg. calculate facility, text editor for writing programs, 'print to screen' option etc.
- ▲ Lets you work with two documents at once
- ▲ You can do all of CP/M's functions without leaving Protext
- ▲ Very fast at moving around, doing exchanges and so on
- ▲ Extremely powerful and flexible mailmerger
- ▼ Forces you to learn another new set of control keys to use it
- ▼ Not as slick as LocoScript in its printer controls

### ANSIBLEINDEX

£29.95 • Ansible Information • 0672 62576

*Takes a LocoScript file and compiles an alphabetical index with page numbers from all the words marked. You mark the word to be indexed by using LocoScript's (+RV) code. The price includes the AnsibleCheck word counter/proof reader program too, which is also available separately at £14.95.*

#### PLUSES • MINUSES

- ▲ LocoScript documents don't have to be converted to ASCII
- ▲ Can 'invert' phrases, eg 'Smith, Fred' or 'Fred Smith'
- ▲ Can produce a single index over several different files
- ▼ Output index not LocoScript document – must convert it
- ▼ Can only index words appearing literally, not general topics

### EASY LABELLER

£34.44 • M.A.S.S. • 0603 630768

*Labelling program which stores your names and address list and will print out in label format selected items from it.*

#### PLUSES • MINUSES

- ▲ Useful options like printing out current date
- ▲ Good search facilities
- ▲ Range of printing options will fit most stationery
- ▼ Data needs an entire disc to itself
- ▼ Data entry is slowed by constant returning to main menu

### LOCOSCRIPT 2

£24.95 • Locomotive Software • 0306 740606

*As bundled with new 9512, the new version of everyone's first word processor. If you know how LocoScript 1 works, you'll have minimal relearning to do, and it puts right (almost) all the defects of the old version at a rock bottom price. Greek and Cyrillic alphabets, and even lets you define up to sixteen characters of your own design.*

#### PLUSES • MINUSES

- ▲ 'Find page' command makes moving around faster
- ▲ Superb range of foreign accents and symbols available
- ▲ Can now drive daisywheel and other printers
- ▲ Has DISCKIT's formatting and copying built into it
- ▲ New 300-page manual
- ▼ Mailmerger and spelling checker not included
- ▼ Inconvenient for regular CP/M users
- ▼ Still no word counter!
- ▼ Still slow at Find, Exchange and scrolling

### LOCOSPELL

£19.95 • Locomotive/Amsoft • 0306 740606

*The ultimate spelling checker for LocoScript users. It is run as a simple menu choice while you are editing a document normally, and you can check either an entire document or only a paragraph. When it finds an error, it suggests a correction. Reasonably fast, given LocoScript's inherent sloth.*



**SPECIAL OFFERS** **8000 PLUS**

# STOP PRESS

Only £74.99 (RRP £89.99)

The best DTP package for the PCW we could find!

Desktop Publishing

ICON SOFTWARE  
CREATIVE GRAPHICS  
FASTER INTERACTION

There are sensible fonts  
**AND THERE ARE EXOTIC FONTS**  
Kind of course the statutory Old English font  
So whatever you want you will find  
**One to suit -**  
And if it doesn't quite fit you'll get it  
Or else **Stretch it to fit**

▲ 'Just some of the fonts available on AMS' Stop Press'

Desktop publishing – doing page makeup on your computer instead of the old cut-and-paste method – is the boom area of home computing. All the national dailies are switching over to DTP methods – and so are thousands of PCW owners, to produce newsletters and flyers.

Want to try your hand? The best developed DTP package for the Amstrad PCW range is now available from Future Publishing at an all-in price of £74.99. Stop Press's incredibly versatile and powerful software plus mouse will turn your PCW into a DTP machine.

The Swiss-made mouse is probably the best currently available and offers high resolution movement all over the screen. The software makes the best possible use of this sensitivity, featuring as it does a wide range of DTP facilities which would probably cost three times as much on higher-priced computers.

- Just a few of the features are -
- 14 different fonts supplied
- Type sizes from 9 to 96 points
- Clip art ready made to insert into files
- Text entered **directly** or **imported** from word processor
- On-screen text formatting, including **autoflow** around a picture
- **Draw, spray or paint** - your own designs or those supplied
- Up to **nine columns** per page!
- Bold, italics, underline, reversed boxes
- Centering, ragged right and literal justification
- Prints up to **108 pages** in one go
- **Shape drawing** includes triangles, squares, cubes, circles and ellipses
- Compatible with **digitised pictures** from MasterScan, Electric Studio and the Rombo digitiser
- **9512 compatible** using an Epson compatible dot matrix printer

Altogether, this is a superb way of getting to grips with DTP. We don't expect to offer any other DTP package through these pages again, because we've held back until we were absolutely sure that this was the best deal. So here's your chance to get going.

Save £15 on the manufacturer's recommended retail price by placing an order with our mail order department (telephone 0458 74011)!

Newsletters, fanzines, posters, letter heads, leaflets, charts, graphic business reports, flyers... all are now within reach, allowing your imagination as much freedom as possible. And with Stop Press there's no better way into the world of DTP.

Order Code 8023



## PLUSES • MINUSES

- ▲ Runs totally from within LocoScript
- ▲ Can do small sections of a file
- ▲ Suggests alternatives for misspelt words
- ▲ Reformat the text as it makes corrections
- ▲ Provides the much-missed LocoScript word counter
- ▼ Can't remove spellings you don't like
- ▼ The manual gets bogged down sometimes
- ▼ Slow at scrolling the dictionary window

## LOCOMAIL

£29.95 • Locomotive/Amsoft • 0306 740606

As a mailmerger for LocoScript, it's difficult to see how anything could be better than this. It runs directly from LocoScript, and can process any LocoScript commands. Has many advanced features and is highly recommended for all LocoScript users.

## PLUSES • MINUSES

- ▲ You don't have to run it from CPM
- ▲ Can print any LocoScript text formatting commands
- ▲ Can automatically rejustify paragraphs after insertion
- ▲ Can insert numeric calculations into letters
- ▲ Can read data from non-LocoScript (ie. ASCII) files
- ▲ Large manual, with example files on disc
- ▲ Powerful selection procedures - like a database
- ▼ Need separate program to sort and filter addresses before a print run

## PROPELL

£29.95 • Arnor • 0733 68909

A stand-alone spell checker for use with almost any wordprocessor that runs on the PCWs. Reads LocoScript, WordStar and ASCII files, and allows you to make corrections directly. view the context, change the dictionary etc. Specify which machine when buying.

## PLUSES • MINUSES

- ▲ Checks LocoScript and WordStar documents directly.
- ▲ Displays the context of a suspect word
- ▲ Can edit misspellings directly from Propell
- ▲ Anagram and crossword solvers too
- ▼ Processes files of 15K or more in sections

## MINI OFFICE

£29.95 • Database • 0625 878888

The word processor module of this five program package is very fast and powerful, with a word counter, but suffers from a mass of bugs in file saving and printing (and proportionally spaced justified print takes ages); doesn't yet rival LocoScript or Protext.

## PLUSES • MINUSES

- ▲ Very fast and packed with features
- ▲ Unlimited headers and footers (eg. for footnotes)
- ▲ Can access printer directly (eg. for graphics)
- ▲ Screen can show exactly what will be printed out, italics, bold, pitch changes and all
- ▼ Currently riddled with bugs in printing, file handling, etc
- ▼ No phrases facility

## POCKET WORDSTAR

£49.95 • MicroPro/Davis Rubin • 0386 853610

For many business users, word processing means WordStar. Almost everything you could need in a text processor is here and despite the title this "Pocket" version has all the features of the original. Efficient and proven, but now showing its age and there are alternatives unless you are committed to WordStar already. £20 extra buys the De Luxe version with spell checker.

## PLUSES • MINUSES

- ▲ Probably the world's most widely used word-processor
- ▲ Documentation is complex but well-structured
- ▲ Includes a mail merge utility
- ▲ Keystroke commands fully described on on-screen menus
- ▼ Doesn't make full use of the PCW keyboard and printer
- ▼ Page and margin formatting commands awkward to use

## NEWWORD

£69.00 • NewStar Software • 0277 220573

NewWord exploits the WordStar market by doing the same job better. It uses much the same key commands as WordStar and will even edit documents prepared under WordStar. Comes with a spelling checker, and the on-screen help is better than WordStar's, though the keystrokes are still as obscure

## PLUSES • MINUSES

- ▲ Does everything WordStar does, even reads WordStar files
- ▲ Spelling checker included
- ▲ Can un-erase words and lines
- ▲ Onscreen help better than WordStar's
- ▲ Full reformatting of text within mailmerger
- ▼ Weak on use of keypad and printer support
- ▼ Like WordStar, formatting troubles and obscure commands

## LABEL PRINTER

£25.00 • Microdraw • 0622 685481

Very similar program to Easy Labeller it not quite as powerful. Usual features of a labeller and you can store comments with each label's data.

## PLUSES • MINUSES

- ▲ Menus simple - easy to get the program going
- ▲ Fast data entry
- ▲ Can store comments with each entry
- ▼ No import or export of data
- ▼ Data needs an entire disc to itself

## LOCOKEY

£14.95 • Locomotive Software • 0306 740606

This successor to LocoChar is a keyboard customiser which means that any key can be made to produce any letter. The program will reproduce any one of the sixteen LocoChar defined characters.

## PLUSES • MINUSES

- ▲ Enables customisation to any distribution of keyboard letters
- ▲ Handles any combinations of accent and character
- ▼ Will only be of limited use

# • ACCOUNTS • PAYROLL •

## MONEY MANAGER PLUS

£39.95 • Connect Systems Ltd • 01 743 9792

The souped-up version of the personal accounts package Money Manager which would serve a small business quite nicely. It acts as a daily diary, over 12 months, recording all incomings and outgoings between up to 9 accounts. Similar transactions can be grouped together, and simple reports can be printed. Money Manager also available for £24.95

## PLUSES • MINUSES

- ▲ Simple to use, need no accounts or computer knowledge
- ▲ Standing orders can be defined for each month
- ▲ Detailed and summary statements can be printed out
- ▲ VAT reports can be separated out
- ▲ Can present results as bar charts
- ▼ No audit trail integrity
- ▼ The statement format is not very flexible
- ▼ Transfers between accounts are not cross-referenced

## VITAL PROCESSOR SERIES

£29.90 each • Vital Software • 0732 810330

Series of three programs designed to help you look after your money and your assets. The Savings Processor is ideal for someone with a portfolio of stocks and shares; it tells you your 'net worth' like a balance sheet. The Insurance Processor helps you make an inventory of all your possessions and put a value on them, while the Income Processor helps you keep tabs on your incomings and outgoings.

## PLUSES • MINUSES

- ▲ Income Processor allows you to budget efficiently
- ▲ Insurance Processor can complete inventories room by room
- ▲ Savings Processor is a fast and efficient way of keeping track of share values
- ▼ You have to be keen to do all the research
- ▼ It can be time-consuming
- ▼ With the Income Processor, it's difficult getting all the information you need from the manual
- ▼ It's not always clear how some of the operations work

## CHECK ACCOUNTS PROGRAM

£9.95 • M E Hodges • 03722 75053

A much more detailed accounts package, which allows you to make forecasts and keep track of the interest charged on your personal finances. Simple to use and the program also allows you to jump to any time in order to work out any interest accumulated in the meantime.

## PLUSES • MINUSES

- ▲ Easy to learn from demonstration files supplied
- ▲ Interesting use of time scales
- ▼ Relatively slow screen update
- ▼ Only useful for the really organized

## DIGITA BUSINESS CONTROLLER

£69.95 • Digita International • 0395 45059

Not a full accounting system, but a very easy-to-use package with an excellent manual. Nominal ledger already set up and you can be up and running in minutes. No aged creditor/debtor lists can be produced, and problems with VAT handling - not really for VAT businesses. For other small business it's very good value.

## PLUSES • MINUSES

- ▲ Delight to use with a very good manual
- ▲ You can get the system working in minutes
- ▲ Financial ratios can be included in reports
- ▼ VAT handling very cumbersome, suit non-VAT business
- ▼ No facility for producing aged debtors/creditors list

## BOOK-KEEPING AND ACCOUNTS

£57.50 (£80.50 with stock control) • Manx Tapes • 0624 813071

Supplied with a very useful introductory demonstration disc, the program advocates a very traditional style of double-entry book-keeping. Program has high degree of flexibility.

## PLUSES • MINUSES

- ▲ Solid, traditional approach to double-entry book-keeping
- ▼ Program doesn't make full use of the PCW
- ▼ Screen prompts not always that helpful
- ▼ Written in BASIC, so prone to sluggishness

## COMPACT ACCOUNTS

£199.99 • Compact Software Ltd • 0703 611214

Another very large integrated package supplied on several discs and consisting of sales, purchase and nominal ledger together with invoicing. The package is available on much larger micros, and since the format in which data is produced is the same as on PCWs, the system is particularly suitable for users planning to upgrade their hardware at a later date.

## PLUSES • MINUSES

- ▲ Audit trails are an auditor's dream
- ▲ Data can be used in WordStar, Multiplan or SuperCalc 2
- ▲ Superb prepayment facility
- ▲ Can run a number of companies separately
- ▲ Easily transported to bigger computers
- ▼ Lots of disc swapping necessary
- ▼ Can be slow to use - it runs in Mallard Basic
- ▼ Quirks in cash allocation routine and account code system

## ANAGRAM ACCOUNTS

£86.25 • Anagram Systems • 0403 59551

Sophisticated package for users familiar with accounts. Small details (discounts, VAT) handled well but no permanent records are kept on disc; you must use its report printing options.

## PLUSES • MINUSES

- ▲ Invoice printing is easy
- ▲ Handles customer details efficiently
- ▼ Key presses are rather obscure
- ▼ Best to have some idea of accounts before using it

## M.A.P. ACCOUNTS

£149.95 • MAP Systems • 061 624 5662/3

This is a very powerful package moved onto the PCW at a fraction of its cost on larger micros. The size makes it a little cumbersome to use, but apart from that there are very few significant problems. The integrated suite includes the same five modules as Camsoft, but they are supplied on four sides of disc, making it effectively impossible for the software to be run as an integrated system on an unexpanded 8256.

## PLUSES • MINUSES

- ▲ A very comprehensive and professional package
- ▲ Very good audit trails
- ▲ Sales/purchase ledgers can run over different periods
- ▲ Facility for handling prepayments and accruals
- ▲ Able to print full management accounts
- ▼ The size of the programs means lots of disc swapping
- ▼ All normal responses need to be in upper case



## CORNIX SIMPLE ACCOUNTS

£49.95 • Cornix • 0462 682989

Simple cash-book style package which allows you to keep track of debtors and creditors (though not aged ones). Simple to use and you can make changes if you make a mistake. Slow to use for complex operations and number of entries in given period is limited, but very good simple program for small businesses.

### PLUSES • MINUSES

- ▲ Simple, easy-to-use program
- ▲ Can correct errors
- ▲ Keeps track of debtors and creditors
- ▼ Slow for complex operations
- ▼ Ability to alter figures won't please accounting purists

## CAMSOFT PSIL

£149.95 • Cambrian Software • 0766 831878

Consists of five integrated packages: Sales, purchase and nominal ledgers, invoicing and stock control. In terms of sophistication it falls somewhere between the Sagesoft package and the larger systems from MAP and Compact. But it's easier to run than the larger packages since all the software can be squeezed into the M drive. Good package for a small company.

### PLUSES • MINUSES

- ▲ Already set up for 8256 or 8512
- ▲ No need for pre-printed stationery
- ▲ Excellent sort and search facilities
- ▲ Invoices shown on screen as you create them
- ▼ Constant need to input full five-digit account codes
- ▼ No final accounts reports available on nominal ledger
- ▼ No facility to run the ledgers in different accounting periods

## CAVALIER INSTALL

£99.95 • Load & Run • 01-639 6683

A comprehensive integrated package. Comprises 'Intect' accounts and 'Instock' stock control, available separately for £59.95 each. Well designed, easy to run and powerful enough for most businesses.

### PLUSES • MINUSES

- ▲ Other packages (eg: 'Teleadd' address book) can be added
- ▲ Comprehensive range of features when used as a package
- ▲ Sophisticated pricing and order features in Instock section
- ▲ Flexible accounts, traps most mistakes, useful summaries
- ▲ Interesting forward planning facility in stock control
- ▼ Manual gives you a confusing number of options

## SMALL BUSINESS ACCOUNTS

£69.95 • NewStar • 0277 220573

Using the split-screen method, the prompt-driven program leads you through the hazards of double-entry book-keeping as painlessly as possible. Again, very useful demonstration files supplied with the program. It also handles VAT easily.

### PLUSES • MINUSES

- ▲ Excellent system of screen prompts
- ▲ Good demonstration files
- ▲ One of the easiest double-entry systems for the novice
- ▼ Manual is really for the PC

## SAGE ACCOUNTS

£100.05 • Sagesoft • 091 284 7077

An integrated accounts package consisting of purchase, sales and nominal ledgers. For another £50 you can buy Accounts Plus which also has invoicing and stock control. Aimed at small companies with the emphasis on ease of setting up. But a number of limitations, eg. the package can not cope too easily with rapidly increasing numbers of customers and suppliers.

### PLUSES • MINUSES

- ▲ Clean, tidy and logical screen layouts and menus
- ▲ Easy to set up and use with excellent documentation
- ▲ Good audit trails and VAT reports
- ▲ Can produce formatted trial balances
- ▼ Restrictive account numbering system
- ▼ Only single Nominal ledger and VAT analysis per item
- ▼ Does not cater for settlement discounts
- ▼ Won't print remittance advice slips
- ▼ Cramped on 9512 printer - need 17 pitch daisywheel

## MAP PAYROLL

£49.00 • MAP Systems • 061 624 5662

### PLUSES • MINUSES

- ▲ Can amend and re-run at any stage (even after printing)
- ▲ Cash analysis is broken down into departments
- ▲ System prevents re-use or amendment of leavers
- ▲ Can hold up to 40 standard hourly and weekly wage rates
- ▼ No SSP calculation facility (but can record all amounts paid)
- ▼ Programs necessitate a lot of disc swapping
- ▼ No printed record of automatic tax code changes

## SAGESOFT POPULAR PAYROLL

£69.95 • Sagesoft • 091 284 7077

### PLUSES • MINUSES

- ▲ Any or all employees payroll can be rerun at any stage
- ▲ Full pay history available for all employees and leavers
- ▲ Calculates average pay for holidays etc
- ▲ Very easy to install
- ▼ Limited number of additions/deductions
- ▼ Doesn't print a list of cheques
- ▼ No analysis of additions/deductions

## COMPACT PAYROLL

£99.95 • Compact Software Ltd • 0306 887373

### PLUSES • MINUSES

- ▲ Supplied with test data
- ▲ Facility to change employees tax codes following budget
- ▲ Can run payroll for several companies
- ▲ Program available for PC compatibles - data transportable
- ▼ Must be run from the master discs
- ▼ Needs input form and check calculation for each employee
- ▼ Once payslips are printed nothing can be changed
- ▼ Most expensive payroll program

## CAMSOFT PAYROLL

£49.95 • Cambrian Software • 0766 831878

### PLUSES • MINUSES

- ▲ Full payslip displayed on screen, any item can be amended
- ▲ Facility for freehand narrative on any payslip
- ▲ Uses M drive for programs to speed operation
- ▲ Built in on-screen help facility
- ▲ Search-sort routine for output to screen, printer or disc
- ▲ Uses alphanumeric employee codes
- ▼ Screen menus a bit untidy and sometimes difficult to follow
- ▼ No listing of cheques

# • UTILITIES •

## BRAINSTORM

£29.99 • Brainstorm Software Ltd • 0895 677845

A new improved version, reconfigured for easier use on the PCW. Works as an 'ideas processor'; you throw your ideas in any order and then use the program to rearrange them and impose a structure.

### PLUSES • MINUSES

- ▲ Quick and efficient and easy to use
- ▲ Encourages structured thinking
- ▲ Versatile: many different editing facilities
- ▲ Results can be fed into a word processor for polishing up
- ▼ Namesakes must be exact matches
- ▼ Manual is on disc, so you can't consult while using BrainStorm unless you print it out

## PRO-PERFORMER

£59.95 • Electromusic Research • 0702 335747

The only real musical add-on for the PCW. Easy to use software runs on CP/M, has a wide variety of powerful features and is icon-driven. Sophisticated recording facilities and the program will allow you to save compositions as tracks, songs or performances. Ideal for pop and classical musicians.

### PLUSES • MINUSES

- ▲ Icon-based screen
- ▲ Can record lines independently or in an arrangement
- ▲ Punch-in editing facilities
- ▲ Facility for slow recording and fast playback
- ▲ Step-time recording for strict in tempo lines
- ▲ Tracks can be looped (made to repeat)
- ▼ Manual glosses over arrangements
- ▼ Can't edit notes individually
- ▼ No musical notation anywhere

## JOB ESTIMATING & PRODUCT COSTING

£79.90 each • Cornix Software • 0462 682989

Both programs aim to provide help to small businesses by keeping track of costs. You break down the product you're costing or the job you're doing into a series of costing lines - recording quantity and price per component. Program analyses profit margins and can produce customer printouts.

### PLUSES • MINUSES

- ▲ Excellently-written manuals
- ▲ Simple and robust to use
- ▲ Changes in material costs instantly reflected in all quotes
- ▲ Neat way of doing on-the-spot quotes
- ▼ Only suitable for small to medium-sized businesses
- ▼ Can't add new components to a description

## TEMPDISC 8.2

£18.95 • Thurston Techniques (0395 277496) • 8512s only

Disc of ready-made templates to be used inside LocoScript 2. All you have to do is find the particular template to suit your requirements and then fill in the details. Vast selection of borders is excellent for personalising labels and envelopes.

### PLUSES • MINUSES

- ▲ Has included files to complement LocoMail's invoicing facilities
- ▲ Very easy to use
- ▲ Vast range of templates available
- ▼ Not so good if you don't like lots of visual trimmings

## FORMS BOX COMPENDIUM

£19.95 • Disc Design • 0522 40940

Fully compatible with LocoScript 1 and 2, this disc provides 70 different kinds of forms for home and office use. You can either fill them in on the screen, save and print them out or print them out and fill them in later. A solid, no frills product.

### PLUSES • MINUSES

- ▲ Very easy to use
- ▼ Will only print out on A4 size paper

## POOLS PREDICTOR

£15.99 • Corwen Computing • 0490 2902

This program helps you select the numbers to cross on your pools coupon taking its recommendations on the recent form of each team or simply on the basis of sequence prediction (going on the numbers which have provided draws in the past).

### PLUSES • MINUSES

- ▲ Very easy to use
- ▲ More accurate than the newspaper pundits
- ▼ Entering form results from week to week is tedious

## LOCOFONT I

£19.95 • Locomotive Software (0306 740606) • 8000s only

A selection of new fonts to help you break out of the standard LocoScript typeface. There's a very good selection of styles to choose from: 'handwritten' styles look very good as do the Copperplate and Script styles. The Roman and Standard fonts are more practical. The new characters are reproduced very well indeed. A further six fonts are available, including Old English and flowing script, on LocoFont II for £14.95.

### PLUSES • MINUSES

- ▲ Eight new fonts, one coming for free
- ▲ Each style supports all accents, characters, etc.
- ▲ Relatively cheap and easy to use
- ▲ Can break out of that one-pattern printout.
- ▼ Can't mix styles in one document
- ▼ Limitations of a 16 dot pattern means that the quality cannot be brilliant



## DISC MATE

£24.99 • Siren Software • 061 848 9233

Disc Mate is a set of CP/M utility programs which bring complex disc recovery operations within the scope of CP/M novices. Facilities include recovering erased files and making files 'read only' (ie, uneraseable).

### PLUSES • MINUSES

- ▲ Simple on-screen instructions once you've got started
- ▲ Allows easy recovery of accidentally erased files
- ▲ 'ZIPDISC' program speeds up disc access by 10 to 20%
- ▲ Friendly file copying program in case you dislike PIP
- ▲ Can read both single and double density discs
- ▼ You'll need to understand CP/M basics

## TAS-SIGN

£29.95 • Tasman Software • 0532 438301

Takes time to print out but you can print signs of up to five lines of text up to seven inches high with up to 32 characters in each. Four fonts, eight hatching patterns, and you can print lengthways on continuous paper for long signs.

### PLUSES • MINUSES

- ▲ Wide range of fonts and shadings
- ▲ Long signs will print out in 'landscape' (sideways) format
- ▼ Long signs take time
- ▼ Some symbols (yen signs etc) won't print out on PCW

## GILLIGAN'S GUIDE

£25 • £30 • NG Gilligan • 0629 56347

A geographic information program based on the Ordnance Survey system. Concentrates on a given area loosely 15 square miles; it will list all the places included on the map in alphabetical order with their grid references. Also gives you information about the sites and will locate them on the map. You can also interrogate the system so that it only gives you details and locations of sites of special interest.

### PLUSES • MINUSES

- ▲ A thorough, versatile and easy to use package
- ▲ System can be interrogated in a number of interesting ways
- ▲ Breaks sites down into areas of specific interest
- ▲ You can commission your own made-to-measure guides

## PERSONAL TAX PLANNER

£25.95 • Digita International • 03954 5059

Simple program which asks you all the questions relevant to your year's tax affairs, and prepares your tax return claim (or bill!) Can, for example, find out whether married couples would be better assessed separately or not. Annual updates available.

### PLUSES • MINUSES

- ▲ Simple to use
- ▲ Needs a minimum knowledge of the tax law
- ▲ Forces you to keep your tax details in one place
- ▼ Limited application – might only use it once a year
- ▼ Can't handle unusual cases
- ▼ Program updates (for a new allowance level) cost £10

## KNIFE PLUS

£19.95 • Hisoft • 0525 718181

An essential tool for retrieving data from corrupted discs. Knife Plus will copy all uncorrupted sectors on to a fresh disc which you can then patch up without risking the original.

### PLUSES • MINUSES

- ▲ Copies all uncorrupted data from damaged discs
- ▲ If boot sector damaged, will copy good boot sector onto disc
- ▼ Requires some knowledge of basic disc structure
- ▼ Manual not written for beginners

## WISE ONE

£34.95 • Swallowsoft • see below

An expert system – you input rules and information and Wise One becomes an 'intelligent' program which can, for example, do simple diagnoses according to symptoms you type in. From PO Box 107, Walton on Thames, Surrey KT12 5PQ.

### PLUSES • MINUSES

- ▲ Power to be genuinely useful
- ▲ Elementary arithmetic
- ▲ Help screens can be set up for the user
- ▼ Obscure way of writing rules – need programming instinct
- ▼ Manual dry and academic

## FLIPPER

£24.95 • Software Imperatives (0453 886931) • 9512/8512.

This program allows you for the first time to flip between CP/M and LocoScript II without resetting the machine. Ideal for easy import/export of data.

### PLUSES • MINUSES

- ▲ Quick, simple and easy to use
- ▲ You flip back to where you left off in the other environment
- ▲ Works with most CP/M programs. LocoScript and BASIC
- ▼ Won't work with games that ignore SHIFT EXTRA EXIT
- ▼ Won't work with LocoScript 1 or Mini Office
- ▼ Be careful of printer and disc drives when flipping

## SUPER TYPE II

£1495 • Digita International • 03954 5059

A program for users of LocoScript and CP/M programs, which modifies the fonts used by the PCW printer. Super Type has 4 'business' and 'novelty' fonts. It works by directly altering the relevant files for LocoScript or CP/M, so you only need run it once – after that, the new chosen font is available.

### PLUSES • MINUSES

- ▲ Once installed, you can totally forget it's there
- ▲ Genuinely useful range of fonts available
- ▲ All LocoScript's print size and style options still work
- ▼ You can't mix different fonts in the same document

## DAATAFAX

Basic version £39.95 (with Microfile £49.95/with mouse £79.95) • Kempston Data • 0908 677886

Used with personal ring binder, it helps you keep track of names, addresses and appointments. Prints out data in a form that will fit the average organiser.

### PLUSES • MINUSES

- ▲ Flexible and easy to use; saves buying inserts
- ▼ Not very sophisticated; keeping it up to date is tedious

# • DESK TOP PUBLISHING •

Desktop publishing – or DTP – packages enable you to produce your own newsletters using your PCW. They come with a variety of fonts of a range of sizes for headlines and body text and a selection of graphics to include in your creations. You read in your articles prepared by a word processor into text boxes. If you can't edit the text from within the program, you have to go back to your word processor to fine-tune the article to fit – this is very tedious. Then you put your graphics in graphics boxes, make up your headlines, and then lay out your publication on the PCW by juggling the position of your boxes on each page. Finally you can get a copy of each page on your printer (though not if it's a daisywheel, of course, as on the 9512) and photocopy the results.

The results won't be of sufficient quality to compete with the professionals, but for club and company newsletters, leaflets, posters and small publications, DTP could be invaluable.

## FLEET STREET EDITOR PLUS

£49.95 • Mirrorsoft • 01 377 4645

The most versatile and powerful package. You can create template-like 'page dummies' if you use several pages of the same format, and handling of text, setting of margins and size of text boxes etc, is well controlled. Tends to stop working abruptly for no reason though and uses memory space extravagantly.

### PLUSES • MINUSES

- ▲ Versatile integrated package
- ▲ Text handling and editing sophisticated and controlled
- ▲ Can set up page dummies for regularly used formats
- ▼ Crashes occasionally
- ▼ Odd use of memory in text editor
- ▼ Still lots of serious bugs even now

## NEWSDESK INTERNATIONAL

£49.95 • The Electric Studio • 0462 420222

Versatile package with a very wide range of graphics facilities and high quality headline text. Page make-up is flexible, though the program can be a bit cumbersome, mainly in text handling. Same graphics facilities as Electric Studio's 'Art' package.

### PLUSES • MINUSES

- ▲ Good control over the elements on the page
- ▲ Powerful graphics facilities
- ▲ Good quality print in headlines and large fonts
- ▲ Can use font editor to create your own high quality fonts
- ▼ Text handling slow and cumbersome
- ▼ Not easy to undo mistakes

## STOP PRESS

£49.95 • Database Software • 0625 878888

An excellent DTP Package, very strong on graphics, very well designed, and once you get used to it, easy to use. Sophisticated text handling features such as autowrap, but can't edit text – that all has to be done in your word processor before flowing the text in. A lot of good fonts supplied too.

### PLUSES • MINUSES

- ▲ Excellent graphics facilities, good as any graphics program
- ▲ Wide range of text styles
- ▲ Menu and key commands system suits beginner and expert
- ▲ Text autowrap
- ▼ No text editing ability
- ▼ Some quirks in text handling – apostrophes, spacing, etc.

## THE DESKTOP PUBLISHER *Good Value*

£29.95 • Database Software • 0625 878888

Tremendous value for money. Graphics and text boxes can be easily moved around and page layout is clear. You can edit text from within the program, using LocoScript-like commands to set bold and italics. Good range of fonts and graphics too, at half price of its rivals! Mouse optional for £50 more.

### PLUSES • MINUSES

- ▲ Text editor allows you to edit articles to fit the space easily
- ▲ Boxes and general layout easy to manipulate
- ▲ Works with three mice, but fine with keyboard alone
- ▲ Half the price of other packages
- ▲ Good range of fonts and graphics, and can design your own
- ▼ Can't fix size of text boxes – they expand to take all the text
- ▼ Headlines can look a bit jagged

# NEXT MONTH

The guide continues with DATABASES, COMMUNICATIONS, EDUCATIONAL PACKAGES and PROGRAMMING. After that it's SPREADSHEETS, GRAPHICS and GAMES and the month after that it's back to this month's categories.

Our intention is to keep publishing the three parts of the guide in rotation, updating it each month to include all new products. If you would like to see other sections of the guide, back issues of 8000 Plus are available from our Somerton address at £1.75 each.

Meanwhile, if you are aware of any significant errors or omissions in the Files as published, please let us know. We want to maintain it as THE authoritative guide to PCW software.







# 8000 PLUS

**1. 8000 plus disc labels**  
 Packet of 20 for £1  
 (when ordered with another product)  
 Spare labels for your 3" discs in four different colours—yellow, green, red, blue.  
 Order Code 8013

**2. Copi-Reader**  
 This neat and easy copy holder features a unique new clip. It can be positioned on either side of the monitor, and maybe swiveled into position for easy eye contact, and then to the side when not in use.  
 £6.99 Order Code 8075



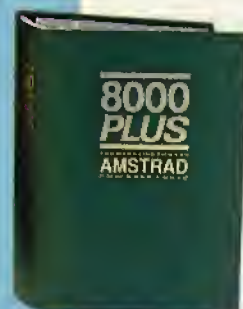
**3. Highlighter Pens**  
 Three for £1.50  
 For £1.50 you get green, red and yellow 8000 Plus-stamped pens in a clear plastic wallet.  
 Order Code 8001

**4. 8000 plus dust covers**  
 3 piece set for 8256/8512 only £11.95  
 3 piece set for 9512 only £12.95  
 Protect your PCW with these specially-commissioned three-piece 8000 Plus covers.  
 Order Code 8005 (8256):  
 ...8006 (9512)

**5. 8000+ T-Shirt**  
 The Truly Terrific American Royal Blue T-shirt with the honour of carrying our 8000+ logo on the left breast. Wear yours with pride and set yourself above the rest!  
 Price £3.95  
 Medium Order Code 8071  
 Large Order Code 8072

**6. Magazine Binders**  
 Store up to 12 issues for just £4.95  
 A superb gold-embossed green binder. Buy one and watch your collection grow into the definitive library of PCW info.  
 Order Code 8004  
 Buy two for £9.00 Order Code 8076

**7. PCW Luggage**  
 An essential addition for any PCW owner who wants to ensure against accidental knocks when transporting his PCW. Ideal for writers on assignment, businessmen when taking the micro to the office, or salesmen for demonstrations.  
 High density foam padding and a water-resistant nylon exterior make this a strong and safe piece of luggage, along with its adjustable shoulder strap and sturdy carry handles.



**A. 8256/8512**  
 Two separated pouches for the printer and keyboard, that then fit neatly into the large case but leave room for manuals, etc.  
 RRP £44.95 8000+ Price £35.95  
 Order Code 8074

**B. 9512**  
 Two large cases for the monitor and printer, with a separated pouch for the keyboard that fits in neatly with the printer but leaves room for manuals, etc.  
 RRP £58.95 8000+ Price £49.95  
 Order Code 8073





# 8000 PLUS



## DESKING TWO

A complete and mobile workstation with slide-away keyboard to save space, and most attractive two-tone grey metal construction with non reflective work surfaces and locking castors.

Comes complete with adjustable printer shelf, printer tray and basket.

Easy assembly and optional side extension.

With extension Order Code 8063

**RRP £195.50 OUR PRICE £159.95**

**SAVE OVER £35**

Without extension Order Code 8064

**RRP £169.95 OUR PRICE £139.95**

**SAVE OVER £30**



LocoFile

The pop-up database for LocoScript 2

**FREE!**

With your copy of LocoFile  
• LocoScript 2 full colour wall chart  
• Set of 3 highlighter pens

## LOCOFILE

**£29.95 plus Locoscript II wall chart and highlighter pens**

'It's difficult to think of any LocoScripters who wouldn't find LocoFile useful', was Rob Ainsley's conclusion when he previewed Locomotive's new database in issue 26 of 8000 Plus.

The fact is, a database which can be accessed from inside LocoScript II and is fully compatible with LocoMail is a brilliantly logical idea. Locomotives usual panache comes to the fore in the feel of the program too. Essentially an easy to use card index, LocoFile features flexible indexing, fast lookup, efficient use of disk space and is suitable for any PCW (plus three hard disk drives).

Features include:

- Look up or change card details from within LocoScript
- CUT and PASTE to and from LocoScript
- Use up to eight indexes at once - alphabetic or numeric
- Cards up to 99 lines by 80 columns wide
- Up to 50 items per card
- Holds 1,000 names and addresses on a 706K disk
- No limit to number of entries on hard disk
- Add or delete fields, change card size at any stage
- Fully two-way compatible with Loco Mail

For all LocoScript 2 users who want an expandable suite of applications, Locomotive is providing the answer without ever having to boot up CP/M! LocoFile provides the classic easy-to-use environment familiar to LocoScript users and has all the hallmarks of a major software launch - Sighs of relief all round!

**Order Code 8044 (8256 version)  
8048 (9512 version)**

## AMGARD SCREEN FILTER

**RRP £71.24**

**OUR PRICE £65.95**

Since a "Health & Safety" feature appeared in another of our publications about a year ago, the Amgard screen filter has been in constant use within our offices here at Future Publishing. Acting as a photographic plate the filter eliminates unnecessary Ultraviolet emissions that cause visual fatigue (or eyestrain). Easy to fit- with FREE anti-static cleaning kit to sharpen your image and readability.

**Available  
for the PCW  
8256/8512  
Code No 806  
for the  
PCW 9512  
Code No 8062**



## FISH

Rainbird/Magnetic Scrolls

**RRP £24.99 OUR PRICE £19.95**

As reviewed in issue 30 of 8000 Plus.

**ONE NIBBLE AND YOU'RE HOOKED**

An adventure game where you play the part of a goldfish !?

With full marks for originality and excellent graphics on a PCW

With characters such as Chuckette

Cemethead and Captain Horatio

Pineapple, just two of the members

from the "Seven Deadly Fins"- as your enemies your task is to recover the stolen "Focus Wheel"

A well written game from the authors of such classics as "The Pawn" and "The Guild of Thieves" - an essential piece of light relief from LocoScript!

**Order Code 8060  
(AIIPCW's)**





## BLACKSTAR from CDS

RRP £19.95

8000+ Price **£9.95**, a saving of £10.00!!

Imagine...

As you awaken from a sleep troubled by strange dreams and visions you find yourself in a luxurious room furnished in silver and glass. The ceiling is high and arched with a huge relief map of the moon hanging overhead. The most striking feature of the room is the woman speaking to you.

She is tall and willowy with hair like spun silver. She carries easily an air of authority and wisdom. She speaks again, "... finally when you locate the orb you must return it to me. You may keep any mortal treasures you find after I have cleansed them of their evil".

She pauses then, "Go forth and do my bidding" You bend and bow saying, "My Lady Artemis..." Darkness enfolds you, until suddenly you find yourself awake in the sunlight of the vale of the castle Blackstar. Your quest has begun...

Order Code 8077 (Only 8256)



## 8000+ SPORTS COLLECTION

The 4 Games together would cost £68.96,

8000+ Price **£35.99**, a saving of over £32.00!!

Consisting of FOUR great titles from CDS:-

**Colossus Chess 4.0**

offering the choice between the usual two dimensional flat board display or the new three dimensional real life board. It comes with a comprehensive instruction manual and is an excellent program for casual and serious players alike.

**Steve Davis Snooker**

features included:- infinitely variable speed, accurate spin, break score table, foul shot routine and sound. 1 or 2 player games.

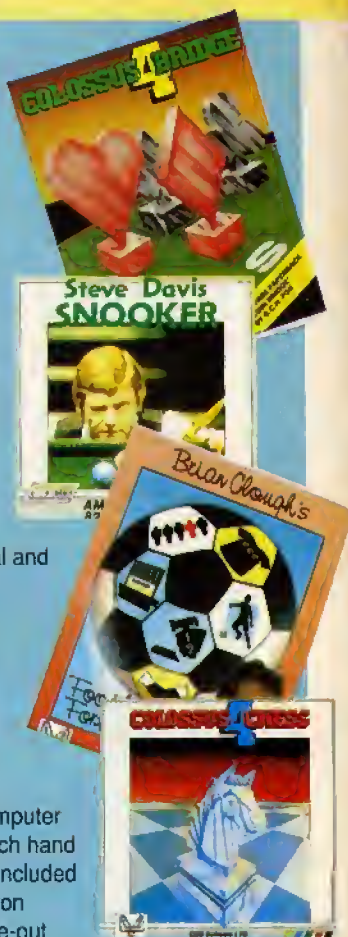
**Colossus Bridge 4.0**

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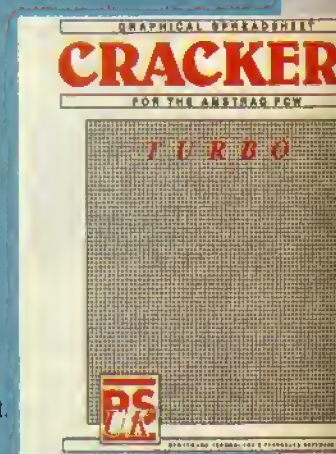
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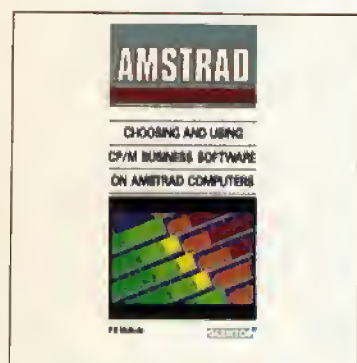
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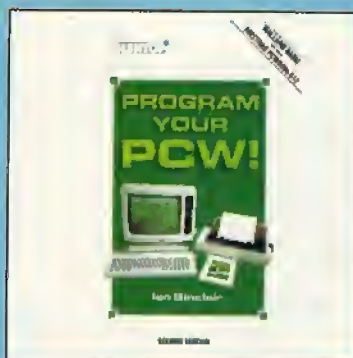
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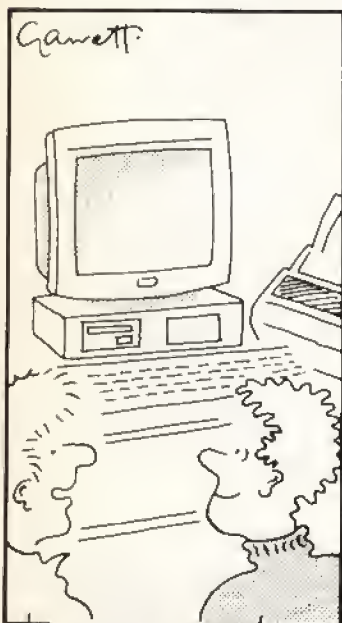
## Loads of leitmotifs in letters lunatic and lobbying but never lethargic

Once again you have your say — and via the magic of publishing thousands pause to read your words. Well, we're prepared to take the risk if you are, so send your thoughts to Postscript, 4 Queen St, Bath, BA1 1EJ

### Loony tunes

The 'Spirographix' program that you listed in your February issue has become my latest obsession. Night and day I might be found analysing the smallest details of this program with wonder and amazement. But my desires remain unfulfilled. For the bloody thing won't work.

Admittedly, I am an illegal immigrant in the world of computer programming. However, I am not a total incompetent — I even deduced that the upside-down circumflex must represent the exponential symbol before you proclaimed this little-known truth.



"IT MAY NOT USE LEADED PETROL, EAT MEAT OR SOFT-BOILED EGGS, BUT IS IT OZONE-FRIENDLY?"

When I run the program (I enclose a listing) the computer appears to do the calculations, but prints the graphics in invisible ink. What is going wrong?

I have checked and re-checked my writing and am now fairly sure that it corresponds with the one you gave. Oh, please, please help me.

I can only presume that I've done something really stupid due to computer-ignorance. I am right in thinking, am I not, that the monitor of my PCW8256 should not be connected to the keyboard whilst in use as this will cause viruses. And is it true that the green screen of the 8256 is an ozone-friendly filter which protects the atmosphere? And when can I change my Amstrad to unleaded petrol? A friend (sort of) told me that LocoScript 2 was tested on rats — I hope not. You might like to know that my Amstrad is vegetarian — it eats muesli for breakfast — it would like to be vegan but can't stomach soya milk. For some reason it is not very well at the moment and hence I am writing in pen and ink.

Love to you all (and especially your PCWs)

Richard Nicholson  
York

**8000 PLUS** The real problem here seems to be your failure to sacrifice a pop-up toaster to the relevant god while rotating widdershins. Seriously, if we ever offered to sort out programming problems we'd have no time for anything else, like puzzling out why our own programs don't work.

LocoScript 2 was tested on rats. It will print perfectly well on any rat provided the fur is removed but their wriggling makes it hard to get NLQ — the second pass usually fails to register properly; stick to draft output.

### Two gun text

In the March issue, you suggest that Jeffrey Archer is a believer in the 'mystical act of manually creating the

prose on the page'.

This is slightly curious since, in last August's issue, you showed a photograph of the aforementioned author with not one, but two 9512s.

Of course, if JA has a doppelganger, that might explain a lot.

Yours, in ill-concealed anticipation.

Edward Lovat  
London

**8000 PLUS** Mr Archer doesn't type. The PCWs are for his secretaries to type on. That's what money is for, to pay other people to do things for you. Alternatively, you can choose to believe that he writes so much that he is forced to use a different PCW for each hand.

### Out of Africa

I thought you might like to know that PCWs are operating in all corners of the world, even Botswana. One of the computer companies in town is called 'Bushman Computers' — surely a contradiction in terms! Your correspondent in the March issue of 8000 Plus has doubts about his PCW working on 220 volts with a fluctuating power supply. I have the same problems here, and also frequent power cuts, and sometimes temperatures above 40C, but so far have suffered no distortion of data.

David Stebbing  
Francistown  
Botswana

**8000 PLUS** In days gone by, manufacturers built simple and unreliable electronics into hand-crafted cabinets with inlays of exotic woods, each control sculpted by a master. Modern electronics are unbelievably reliable (especially when you consider the complexities involved) and are put into the cheapest containers money can buy. As long as you don't drop it, the PCW should continue to work under a wide range of electrical conditions.

### Comm on in

As a relative newcomer to the world of comms, I have been very pleased to see the start of what appears to be a regular comms spot in 8000 Plus.

I did a fair bit of research into modems suitable for the PCW, including digging out my copy of the April 1988 issue of 8000 Plus, and I decided that the Microlink Multi-speed Modem package was by far the best value for money. For £221.00, the package included the modem, which can handle V21, V22 and V23 speeds, a serial interface and the comms and wordprocessing software from Mini Office.

From my own limited experience, I would advise others who may want to delve into comms to start by logging on to a few private bulletin boards rather than subscribing to one of the commercial services such as Microlink or One to One.

I'll come to the point now (at last) which is to ask if you have any plans to include a regular list of private bulletin boards in this magazine. There are always new boards being set up and such a list would, I am sure, encourage more people to use them. As a start, perhaps I could mention one which has recently started up in Oxford and which runs 24 hours a day on 0865 773277. The board can be accessed using any of the above speeds. The sysop, Stephen Green, is very helpful and will welcome new users.

As a final point to the uninitiated, most private bulletin boards use eight bit word length, no parity and one stop bit.

Phil Mountjoy  
Gloucester, Glos

**8000 PLUS** As you can see from this issue we took your advice before even receiving it — such is the speed of modern communication! I'm actually using the Amstrad SM2400 with Dialup, a combination which is performing well. Rumours concerning my train spotting activities are completely unfounded — I've never spotted a train in my life.

### Garbage in, garbage out

What is the point, many have asked, of owning a machine which has 256K or 512K memory, when the Z80 chip at the heart of the PCW can access only 64K memory at any one time?

The computer's memory is divided up into banks (blocks). It is possible to get access to the other blocks with knowledge of the architecture of the machine, but commercial PCW software writers carefully segment their programs into nice little function modules.

When you instruct a program to run, the program is copied into that part of memory known as the Transient Program Area. As it runs, depending on the function required, it will call up the appropriate overlay module to be loaded into memory. This overwrites the previous segment of program in the TPA.



Recently Flipper, a facility which keeps both CP/M and LocoScript on the go at the same time, hit the market. Having both programs lying in different blocks of memory means it is possible to toggle between them, yet still only these two blocks are called into play...

Now, from North of the Border, courtesy of Scotch Mist, comes Twister – an alternative operating system which allows you to dispense with CP/M once and for all. The increased speed of operation of a rejuvenated Joyce has to be seen to be believed. Twister is a 16-bit emulation, and by extensive use of the alternative register set, the authors have persuaded the Z80 chip to run 2 consecutive 8-bit instructions "simultaneously".

And what has this to do with memory blocks? Well, the real magic comes not so much by bank-switching but by bank-levelling. Twister dynamically "lowers" the barriers between the blocks so the parts that other software cannot reach are automatically made available, thereby permitting the use of all the available memory. Programs can now be any size, occupying as much memory as they require, abolishing the need to segment programs.

What about software? No problem. SuperCalc4, Lotus 1-2-3 and other IBM compatible software as yet privy only to PC keepers will, according to Scotch Mist, soon be available in Twister format.

In the meantime, and true to the Scots philosophy, there is no need to lash out: you can simply upgrade your existing software to conform to the new regime. Twister comes with a conversion utility (CONVERT), which will translate your existing software into the new format. It searches through your program disc, bum bum bum bum bum, then translates and reassembles all COM and OVL files into one large CON file.

The catch? The 8512 must be upgraded to use Twister. The A: drive has to be double-density so that the CF-2 disc can accommodate the increased file sizes. 9512 owners breathe a sigh of relief...

**R S Clark**  
**Lhanbryde, Moray**

**8000 PLUS** *We look forward – a long way forward and with breath unheld – for the appearance of this revolutionary software. It's always the same with these cutting edge software companies; they promise us a Laserwriter emulator and finally, three years late, send us a Swan Vesta emulator*

## Super news

I hope that I am one of 30 who are this month saying it for Mary Turner of Dartmouth and her SC2 Black Box. Protekt and MiniOffice have had a good run, SuperCalc2 is, I feel, a worthy contender for a little 8000 space. Needn't confine it to Black Box.

**John Vallance**  
**Ilfracombe, Devon**

**8000 PLUS** *I've had more than the thirty I asked for, so there's no excuse any more. We will be starting a series on SuperCalc just as soon as there's space for it, probably June or July.*

## The other side

Perhaps my experience of dealing with Blakely Computers will at least partially compensate for the misfortunes of Mr Rayner's fiancée. Early one afternoon last June, I phoned Mr Blakely on the strength of his price for an 8512 advertised in your magazine. I blew £10 of the price advantage on 'next day delivery', and sure enough, the next evening I had the machine up and running. The 'obscure location' certainly didn't hamper speed of service.

Also, could you add my vote to the required number for an article on SuperCalc2 Exec files?

I am glad to see that you have avoided the strictness of Messrs Cook and Moore about Tip-Offs terminating in mid-flight by totally failing to print the money-winning contribution from A Coxhead of Kinross.

But let me hastily reinforce Mrs Skipper's comments about the excellence of your magazine before you cut me off from the delight of opening the polythene package each month.

**M H Footman**  
**Portsmouth, Hants**

**8000 PLUS** *Since publishing Mr Rayner's letter we've had one or two people rising to the defense of Mr Blakely and a lot more echoing the original complaints. This subject is now closed.*

*You only noticed Mr Coxhead's absence because I forgot he was in the heading. Tipoffs is changed many times before it finally goes to bed, and anyway, he was in the next one though he only gets paid once.*

## Never too old to learn

Being one of the new wave of computer illiterates who happened to be presented with an Amstrad 9512 as a retirement gift, I have begun to enjoy reading 8000 Plus despite the fact that quite a lot of it might just as well be written in Swahili. This I put down to my advanced age and the fact that I was never given set two of Meccano in my youth, but despite this, I am letting you have the enclosed for your amusement as a genuine plea on behalf of those such as myself who are entirely new to the PCW game.

Please remember that there must be many thousands like me, (recent news reports have stated that a large number of people are quite incapable of programming their video recorders) who are just at the 'toddler' stage and who hope some day to be conversant with the jargon but need all the help they can get here and now. I will continue to read your magazine which I find quite enjoyable despite my above light-

hearted comments and trust you will keep us in mind.

**Bernard Thompson**  
**Marlborough, Wilts**

**8000 PLUS** *It's hard to know who to listen to, those who want an in depth discussion of Fortran or those who want to know how to fit the mains plug (brown wire to live, blue wire to neutral and green/yellow to earth). As to learning the technical ins and outs, you've clearly located the DOGGEREL utility. And by the way, I drive an Ital in a nice shade of British Racing Rust.*

## ALBERT AND THE LIMBO-FILE

There's a famous word-processor called Amstrad, And they sell them to dummies like me, Who don't know a RAM from an ink-pad, And whose brains have scarce half a "K" free.

When they open the box with the stuff in, They tremble with "high tec" excitement, And they open the instruction manual With high hopes of instant enlightenment.

It takes them a day to install it, And by then they're as proud as can be, But they've only read page one of t'manual, And for page two you need a degree!

They sit at the keyboard all keyed-up, With the manual open for guidance, But they've six hundred pages to read up And their confidence suffers subsidence!

What's "boot" and what's "diskit" and "Ascii"? The last means a comic to me. (His name I believe it was Arthur And he sang songs about "busy bees".)

But what's this got to do with the novel? This machine's going to help me to write?

It's beginning to destroy expectation, Of literacy fame overnight.

There's a slot neath the bit like a telly, And you post things in there, so you're told Then you type out your thoughts with two fingers Hoping "Spies Will Come in from the Cold!"

When you've done all this artistic striving, And you're ready to print what you've done, You have to learn now how to tell it You want the damned printer to run!

By this time your brain cells are vacant, And the manual seems to be Greek, And you've gone off the idea of writing With your confidence right "up the creek".

So you turn to a new publication, A glossy '8000 Plus' mag, But you soon learn it's written for "smarties" Who only drive cars such as "Jags".

So I'm thinking of starting a new one For those who are useless and "thick", Who would like to make sense of their PCs When the manual's got on their wick.

Unless, that is, you could remember, We poor folk with lowly IQs, And start writing stuff in your pages That even "Dumbos" can't refuse!

With Apologies To "Albert",  
**Bernard Thompson**  
**("Begger Thumps" in Locospell)**

## Daisy, daisy, give me your answer, do

I notice from your comment in the March issue that foreign daisy wheels are always on your minds. As a recent user of a Norwegian wheel, I thought that you might like to hear of my experience.

Being a redundant oldie and having set myself up as a consultant with a particular interest in exporting to Norway (having learned the language when I lived there many years ago), I saw the need to be able to write to my Norwegian customers on my newly acquired 9512.

Through the pages of your magazine (where else) I spotted the advert for the Locomotive Printwheels Disc. I had previously bought a printwheel from Dixons certain in the knowledge that it would come with some form of instructions for use!

I telephoned Locomotive and asked a very helpful fellow if it was really going to be as easy as the advert said. He said yes; I sent off my cheque and it was! Easy I mean.

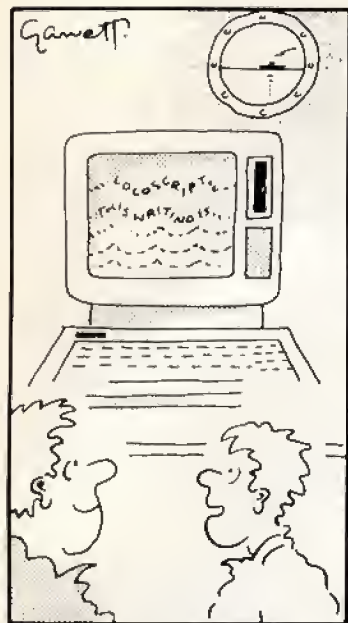
Following the straightforward instructions (bearing in mind that I'm a novice with the PCW) I was able to load the language and copy it onto the start-of-day disc.

Whenever I need to write in Norwegian now, all I have to do is press F6 settings, change the character, swop over the daisy-wheel and I'm on my way. In order to remember the keystrokes for the three extra vowels, I just have a small note taped to the top of the 9512.

So thanks to yourselves and Locomotive for making it so easy.  
**Geoff Woodward**  
**High Wycombe, Bucks**

**8000 PLUS** *Though not quite certain what exactly it was we did for you we are nevertheless delighted to accept the praise; who are these Locomotive people anyway?*





"I TOLD YOU THERE'D BE PROBLEMS ONCE WE SET SAIL"

## Beyond the call of duty

I too can allay Mr Charles Gorman's fears (March 89) about power supplies and fluctuations, and I can dramatically confirm your comments about the tolerance of the PCW to unstable or low voltages.

My PCW has been through severe gales, generator failures, power surges due to rectifier faults and almost every other abuse that shipborne conditions can offer. Yet it is not its tolerance to these which astound me, but the power supply to which it is connected.

When installing the system in my office, I carefully checked to ensure that I was using the correct voltage. We normally run on-board equipment on either 110 or 440 Volts. I was not over anxious to connect my green screened brain to the wrong voltage, particularly the latter! Having found my 240 volt supply, I switched on and have used the system daily for 14 months. In that time I have only suffered a disc write error in one document and on my CP/M start-of-day disc, a pretty good record for a system which is used very heavily seven days a week.

Following a fault elsewhere in the ship's supply, my "socket" was checked. Imagine my surprise to find that my PCW had been using 110 volts. 10% tolerance is allowed for by Amstrad, yet I operate at a voltage more than 50% lower than design. Amstrad expressed surprise too!

I am no physicist, but I think it may be because the ship's frequency is 60 hertz and the power factor is between 0.8 and 0.9. Do you know why my PCW is working?

Lieutenant Duncan Lustig-Preen  
ABSM  
Royal Navy, HMS BULLDOG

**8000 PLUS** There are computer power supplies that can automatically detect the voltage they're connected to. Portable machines are often fitted with them, but the PCW certainly isn't. Unfortunately I don't have a source of 110V to try the experiment for myself but would be interested to hear from anyone who has. How low can the voltage go before the PCW gives up? These and other questions will no doubt be answered in the next issue.

## Unsolicited testimonial

Whilst browsing idly through the pages of a rival magazine in W H Smith's (don't worry: I didn't buy it) late last year I came across a review of Letta-Head Plus. I edit a newsletter, and it seemed from the review that this program would be ideal for the title page, so I wrote to Bradway Software and ordered a copy, which arrived a few days later.

I liked it immediately. The manual is slim, but nicely set out, well printed and, best of all, understandable. The program proved to be easy to use, fast and versatile, and I was very quickly 'at home' with it. I wasn't too keen on the fonts provided, but designing my own on a 16 x 16 grid was easy. The only points about which I was not happy were the 'Erase' facility in the Art part of the program (fiddly in confined spaces) and the way that I was regularly beeped at. I wrote to Richard Walker at Bradway, suggesting that a 'pen erase' would be useful, as would some way of silencing the beep, and was delighted to receive a note saying, in effect 'Good idea. Send your disc back late in January for a free upgrade'.

I duly did so, and LettaHead version 1.2 arrived soon afterwards, complete with an up-date to the manual. I tried transferring the new LETTA.COM to my working disc with PIP, but the result was not successful, so I finally DISCKITed it. The improved version was even better than the original, but it still beeped, so I wrote back to Richard Walker asking what was wrong. This morning a letter arrived telling me that the new PCWG.BIN screen driver was needed for the new LETTA.COM program: I should have PIPped both onto my working disc. The beep problem was an error in programming, and a new disc was enclosed.

Usual disclaimers - I'm not Richard Walker's brother-in-law or sleeping partner, nor have I been promised unlimited free software for the rest of my life. But I am a very satisfied customer and can happily recommend Letta-Head Plus to anyone who edits a newsletter or wants posters, labels or letter heads.

David Burrridge  
Worthing, Sussex

**8000 PLUS** One of the pleasanter aspects of the PCW market is the way some software developers respond to the needs of their customers. Try getting a multinational company like Lotus to listen. Some software suppliers will go even further and actually customise software to order. As for reading it in a rival mag, well, what can I say, you have to live with your conscience; it was in issue 27 of 8000 Plus (December).

## Headless chicken mode

I read an article in one of the February issues of the 'New Computer Express', regarding dangerous levels of emissions from certain PCs, PCWs etc. The article emphasised the danger to pregnant women and to users who sit in front of their VDUs regularly over a long period of time.

'Compaq' screens had an acceptable level, but right at the bottom of the list, with a dangerously high level of emission, was the Amstrad PCW. These safety levels have been set by a European commission within the EEC. Does '8000' have any comment?

Do you know anything of this study, regarding especially the Amstrad PCW? Would these invisible rays do more harm to '8000 Plus' than to pregnant women?

John L Melvin  
Glasgow, Scotland

**8000 PLUS** Well if you've been foolish enough to walk down the stairs (30% of all accidents in the home occur on stairs) and eat breakfast (there are antibiotics and hormones in bacon, fat and cholesterol in milk not to mention salmonella in eggs) followed by driving to work (are you insane? Do you know how many people are killed and injured on the roads?) then you're already living dangerously.

Do you go out in the sun? What, and risk melanoma? Do you smoke? You really want to die don't you. And you're still eating beef despite the risk of seeing your brain turn to sponge - crazy. Yesterday I saw someone taking exercise, and worse, someone who wasn't. Does saccharine cause cancer, is lead in the air rotting your brain, nitrates in the water damaging your liver? Personally I feel ready to keel over from an overdose of health warnings and am staying firmly in front of the PCW - perhaps the deadly rays will kill the bugs in the air!

## Pay to enter

"Well oil beef something or other" as the Irishman said to the Texan! I suggested many moons ago that 8000 Plus should provide a query service. The somewhat tart reply was that you would have to charge a small fortune to make such a service viable!

How marvellous to learn from your

March issue that queries will now be answered for a mere SAE.

In the words of that great patriot, Henry Root (he of Wet Fish fame); 'Well done, keep it up and support Margaret Thatcher!'

Here's a quid for yourself, buy all your staff a drink if you like and keep the change!

Ken Thorp  
Poole, Dorset

**8000 PLUS** Yes, he actually sent us a brass Margaret and we're sharing a bottle of Tizer at this very moment. How the query service works is that if one of us knows the answer we will tell you, if we don't we aren't likely to have the time to find out. If it seems the kind of question that might interest others it will probably go in the magazine anyway.

If you feel there is a certain element of chance involved in all this you would be right. Attaching money to your letters is not recommended, it increases the cost of postage.

## Testing... just testing

Please allow me to correct a couple of errors in your article about LocoFile in the April issue.

When using LocoFile datafiles from LocoMail you can have a LocoFile item name of more than one word - you just use the underline character in place of the space in the LocoMail application. You can also sort text in Greek - this just doesn't have a special menu entry as the standard ordering works for Greek too!

There's a much quicker way to lay out your 'cards' than using the [f5] Item menu. Simply move the cursor to one corner of the box you want to create, press the [+] key and then use the cursor movement keys to expand the box to the desired size.

I was also disappointed to read your comments about the prices at which we sell our NEC printers. Yes, you can buy them on their own from a 'box shifter' for a much lower price than ours, but it isn't necessarily better to do so. We do throw in both the ordinary and the 24 pin printer drivers discs, the correct cable for the requested PCW, and even a UK mains lead (not standard with the printers). We also test each printer before dispatch, supply a test sheet with each, and have even produced a short manual explaining how to set up and use each printer with the PCW.

Howard Fisher  
Locomotive Software

**8000 PLUS** Thanks for the tip and I'm pleased to print your comments on last month's review of the NEC P6 24-pin printer, even if I still don't feel that the price differences are wholly justified.



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## First in and last out

### Commfusing

Yes, we've mastered the arcane arts of comms here – transferring files as soon as look at them. Only the other day we were saying '2400 Bits 8 Stop 1 Parity none Xon' to which British Telecom swiftly replied '#</&&k|Z\$%£'. This expertise makes the problematic behaviour of our Macs and PCWs all the stranger. While we can squirt files from the PCW to the Macs at 9600 baud without any problem, we have to drop right down to 1200 baud to make them go the other way.

Our newly installed Systems Manager was ready with his reply when asked about it. 'Yes, I know, it always puzzled me too'.

The problem is that if something goes wrong when you're using comms equipment you can never quite be sure just where the problem is; are you getting it wrong, is British Telecom, or is it the service you're trying to ring?

Whether we use them or not, electronic communications are here to stay. It makes sense to try and get to grips with them. But when two computers speaking to each other over a simple cable throw up the sort of problem we're having with our Mac to PCW link it's easy to give the whole thing up in despair.

The solution is to settle for something less than perfection: modern technologies *are* more complex than older ones – but unlike earlier technologies they tend to be more flexible and can often be made to work in a variety of ways. The point of this is to suggest that if it isn't broken don't fix it.

Persevere until you get something working *and then guard it with your life*. In fact we have a good idea as to why our cable link misbehaves, but the time spent playing with cables and transferring files to check them out makes it unlikely that we will ever have a two way high speed link. We simply don't transfer material from the Mac to the PCW often enough to get irritated enough to solve the problem.

### Riddlespeak

A good thesaurus is an essential writer's tool, but a bad one can be a menace. Most people combine a thesaurus with a dictionary to check that the synonym they intend to use really does mean what they think it means.

Many have cried out for a disc-based thesaurus and their cries are being answered; first for the PCW market is Three Inch Software's LocoFile version (reviewed on page 38). However, this really is a

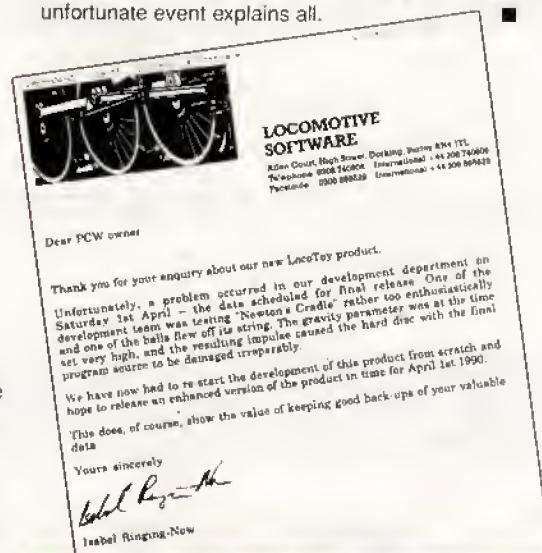
case where you need to check. We asked for synonyms for 'maiden' and were presented with the following screen.

Your personal life is your own of course but if you go along with the suggestion that *bachelor* is a suitable synonym for *maiden* you might end up with some explaining to do.

### Locomotive, the fax

As a postscript to our ground breaking scoop of last month, the fabulous LocoToy exclusive, we have some unfortunate news to report.

As is well known, Locomotive are not a company to announce a product they don't yet have working, so when they told us that there would be a delay in shipping this innovative and exciting new product we were quite surprised. However, a fax sent to us within minutes of the unfortunate event explains all.



## NEXT MONTH

### ● 5 Printers

We compare budget printers

### ● Upgrading to LocoScript 2

Is the strain worth the gain?

### ● LocoMail mathematics

Fun with sums in LocoMail

### ● Spreadsheets

We compare five leading programs

### ● DTP continues

More on using Stop Press

### ● Artificial intelligence

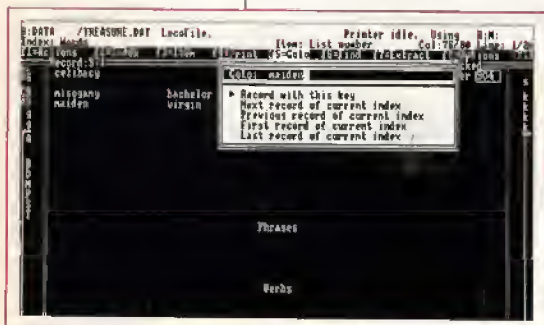
Do PCWs count rams to sleep?

### ● Building a PCW desk

Full instructions for a simple DIY desk

### ● Travel writing

Can your holidays earn you cash?





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# Still the only high-res graphics spreadsheet for the PCW family

The *Cracker* is a unique spreadsheet for PCW users. As well as providing the features and facilities of a full function financial and scientific spreadsheet, it can create complex graphs on the screen and (dot matrix) printer. The latest 'turbo' version has speeded up screen handling considerably, but still costs only £49.95 inc VAT...

- ❑ A new manual with comprehensive indexing and many examples makes the power of *Cracker* accessible to a wider audience.
- ❑ Suitable for simple adding up as well as complex structural analysis.
- ❑ High resolution graphics that can be used as a stand-alone graphics package or from calculated values:  
Bar charts, stacked bar, hi-lo, pie, line, area, XY, LogX:Y, LogX:LogY  
(With multiple labelling options)
- ❑ A very straightforward upgrade path to 16 bit editions on PCDOS and CDOS.

## Powerful command structures

- ❑ DO-WHILE iterative loops.
- ❑ Day, date and timing functions:  
DATE, DATEAFTER, DAYSAPART  
DELAY, TIMELAPSE etc.
- ❑ Macro facilities ...and much more!

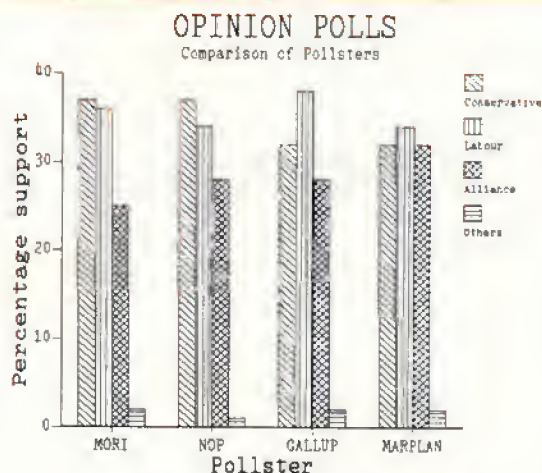
## Cracker:

### Original and still best

*Cracker* was originally created over 5 years ago by Ian Searle to provide himself with a range of facilities that he couldn't obtain in existing spreadsheet and calc programs.

So *Cracker* has one of the longest pedigrees in the business. The fact that it has maintained a consistent interface when the numerous enhancements and extensions have been added - without undermining the basic elegance and power of the product - is a tribute to the original concept.

*Cracker 2* continues to evolve as a 'live' product under current development by its original author: few if any other full-featured spreadsheets for the PCW can make this claim.



Example plot from a PCW printer

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